

NAVAL POSTGRADUATE SCHOOL
Monterey, California



THESIS

**THE MARINE CORPS ENLISTED ASSIGNMENT
PROCESS: THE CUSTOMER'S PERSPECTIVE**

by

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March 2003

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**THE MARINE CORPS ENLISTED ASSIGNMENT PROCESS: THE
CUSTOMER'S PERSPECTIVE**

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ABSTRACT

The assignment process affects Marines within the operating forces several times during their careers, and at times, it affects their decisions to continue service in the Marine Corps or to leave. Additionally, this process affects career development, quality of life, and ultimately their lives.

The assignment process is a sub-process within the Marine Corps Human Resources Development Process, which is studied to determine its perceived functionality and effectiveness from Marines within the Marine Corps operating forces.

Are Marines in the operational forces satisfied with the current process? If they are content with the current process, then the Marine Corps may not have to change the current process. The cost of making changes, i.e., implementing a web-based intelligent agent assignment system within the assignment process, may not meet the Marine Corps' return on investment. This point is supported by the observation that most monitors are satisfied with the current process, and that the Marine Corps has been achieving its retention goals. If not, the Marine Corps may increase quality of life by introducing new assignment processes or systems. These changes could also increase enlisted Marines' retention rate, and ultimately personnel readiness.

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TABLE OF CONTENTS

I.	INTRODUCTION	1
A.	OVERVIEW	1
B.	BACKGROUND AND REASON FOR THE STUDY	4
C.	RESEARCH QUESTIONS	6
1.	Primary Research Questions	6
2.	Secondary Research Questions	6
D.	LIMITATIONS	6
E.	SCOPE AND METHODOLOGY	7
1.	Scope	7
2.	Methodology	7
F.	ORGANIZATION OF THE STUDY	8
II.	LITERATURE REVIEW AND LABOR MARKET ECONOMICS	9
A.	OVERVIEW	9
B.	LITERATURE REVIEW	9
C.	LABOR MARKET ECONOMICS	11
1.	Market Based Approach	12
III.	MARINE CORPS MANPOWER PROCESS	19
A.	HUMAN RESOURCE DEVELOPMENT	19
B.	THE STAFFING PROCESS	25
1.	MMEA Organization	25
2.	Classification and Assignment Documents	27
3.	Enlisted Assignment Models	30
C.	THE ASSIGNMENT PROCESS	31
1.	Decision Making Approaches	31
2.	Decision Making Considerations	34
3.	Additional Factors in Decision Making	36
D.	CHAPTER SUMMARY	38
IV.	RESULTS OF THE QUESTIONNAIRE AND INTERVIEWS	39
A.	OVERVIEW	39
B.	DESCRIPTION OF THE FINDINGS AND TRENDS	41
1.	Assignment Process	42
2.	Marines' Perception of the Monitor	49
3.	Information Source and Effectiveness	53
4.	Job Satisfaction and Career Planning	57
C.	CHAPTER SUMMARY	61
V.	NEW SYSTEMS COMPARED TO EXISTING SYSTEMS	63
A.	MARINE CORPS INFORMATION SYSTEM	63
1.	MASS (Monitor Assignment Support System)	63
2.	Strengths	64
3.	Weaknesses	69

B.	NAVY INFORMATION SYSTEM.....	70
1.	JASS (Job Advertising and Selection System) ..	71
2.	Project Sail and Super-JASS.....	71
3.	EAIS (Enlisted Assignment Information System)	74
4.	Strengths	74
5.	Weaknesses	75
C.	SUMMARY	76
VI.	CONCLUSIONS AND RECOMMENDATIONS	79
A.	RESEARCH QUESTIONS AND ANSWERS.....	79
1.	Primary Research Questions.....	79
2.	Secondary Research Questions	81
B.	RECOMMENDATIONS	84
C.	AREAS FOR FURTHER RESEARCH.....	85
APPENDIX A.	ACRONYMS	87
APPENDIX B.	ASSIGNMENT PROCESS QUESTIONNAIRE	91
LIST OF REFERENCES	95
INITIAL DISTRIBUTION LIST	97

LIST OF FIGURES

Figure 1.	Market-Based Labor Markets (From: Ehrenberg and Smith, 2000).	12
Figure 2.	Marine Corps Manpower 101 (From: Manpower 101 Brief, 2002).	20
Figure 3.	MMEA Organizational Structure (From: Fecteau 2002).	26
Figure 4.	Monitor's Considerations (After: Fecteau 2002).	35
Figure 5.	Effectiveness of Media When Marines Interact with Their Monitor.	57
Figure 6.	Satisfaction with Job by Pay Grade (From: NPRDC).	59
Figure 7.	SEAL in the MASS (From: MMEA MASS SOP).	65
Figure 8.	Results of a Query in MASS (From: MMEA MASS SOP).	66
Figure 9.	Personal Preferences in the "MASS Personal Information" (From: MMEA MASS SOP).	67
Figure 10.	Web Based Orders System (From: MMEA MASS SOP).	68
Figure 11.	Super JASS New Screen (From: BUPERS, 2002).	73

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LIST OF TABLES

Table 1.	Total Force Manning Percentages.	23
Table 2.	Composition of the Survey Sample.	41
Table 3.	Are You Satisfied with the Assignment Process? ..	43
Table 4.	If You Are Not Satisfied with the Current Process, What Is the Reason Behind Your Dissatisfaction?	44
Table 5.	How Many Assignment Choices Were Available to You?.....	45
Table 6.	How Early Did You Get Your Orders Prior to Your Move?.....	46
Table 7.	Were Your Last Orders Issued Early Enough to Allow You to Complete Preparations for Your PCS Move?	47
Table 8.	When Choosing Your Last Assignment, What Was Your Primary Concern?	48
Table 9.	Satisfaction with the Assignment Process According to Marital Status.	48
Table 10.	How Receptive Was Your Monitor to Resolving Conflict Between Your Personal Desires, and the Needs of the Marine Corps?	51
Table 11.	Do You Think The Monitor Treats Everyone Fairly?.....	52
Table 12.	The Most Useful Information Source When Considering the Next Duty Assignment.	54
Table 13.	Are You Satisfied with the Amount of Information Available to You When Considering Your Next Assignment?	55
Table 14.	I'm Generally Satisfied with My Current Job.	58
Table 15.	If You Have Decided to Leave, What Had the Greatest Influence on Your Decision?	60

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I. INTRODUCTION

A. OVERVIEW

This thesis examines and analyzes the current Marine Corps enlisted assignment process from the customer's perspective. There are several customers or stakeholders within this process, but this study focuses on the perceptions of the individual Marines within the Fleet Operating Forces.

The assignment process affects Marines within the Operating Forces several times during their careers, and at times, it affects their decisions to continue service in the Marine Corps or to leave. Additionally, this process affects career development, quality of life, and ultimately their lives.¹ The assignment process is a sub-process within the Marine Corps' Human Resources Development Process (HRDP), which will be studied to determine its functionality, effectiveness and the perception of the process from Marines within the Marine Corps Operating Forces.

The Marine Corps uses a hierarchical planning method for making matches between the commands that need personnel and Marine that are ready to move to another assignment. Monitors, who make the assignments, attempt to match Marines with commands. This method is currently labor intensive, restricts information, and appears to hinge on the personalities of those who make the assignments. Often, many of the stakeholders within this process

¹ This opinion comes from the author's experience as an infantry platoon commander, company commander, recruiting station Operations Officer and Inspector-Instructor.

(Marines, monitors and commands) are frustrated with the process because of its inefficiencies, ultimately affecting morale and unit readiness (Fecteau 2002).

Although retention is currently at an all time high (Edwards 2003), Vice Admiral Patricia Tracey, the former Deputy Assistant Secretary of Defense for Military Personnel Policy stated that "there will always be a focus on retention, because the volunteer force of the kind we have relies very heavily on experienced personnel to serve as leaders and trainers and mentors"(DOD press conference, 2001). Prior to 2001, all services were deeply concerned about retention because they were losing higher than normal numbers of men and women. Because of this problem, Congress legislated several laws that improved retirement benefits, and gave each service more latitude on the distribution of reenlistment bonuses.

The assignment process has a direct impact on retention, as noted by a Department of Defense Survey conducted in 1998. Assignment stability and career progression were among the top five of ten reasons why service members chose to leave the service (GAO report 2001). Hall (2001) noted that over one-third of the respondents in a Marine Corps retention survey were dissatisfied with their job, and the majority felt that they had to "pick up the load" because units were often undermanned (Edwards 2002).

This process continues to produce mismatches between Marines and commands. Perhaps the solution to making the system more efficient, and getting the Marines more involved in the process, is to make it a web-based matching

process. The United States Navy is currently reviewing its enlisted distribution process, and specifically, assignments to determine the feasibility of a web-based assignment process. The Naval Personnel Research Studies and Technology (NPRST) branch along with the Naval Postgraduate School (NPS), the University of Memphis, and the University of Mississippi have undertaken the challenge of redesigning this process (Butler and Molina, March 2002). Recently, Professors William Gates and Mark Nissen from NPS have been investigating a two-sided matching model using intelligent agent technology that would reduce or eliminate the need to have a broker such as the detailer within the Navy's assignment process. In this process, the sailors use the web to view job availability worldwide then input their preferences, while commands do the same. The system then creates matches.

Although this is a simplistic explanation of the matching process, in reality, this is a very complex process. The difficulty of such a matching process was revealed on two separate in-class exercises performed at the Naval Postgraduate School by Manpower Systems Analysis students. The multiple factors that must be considered when an individual makes a decision are based on what he or she values at that particular period of time. In this exercise, the students used a decision support system, Logical Decision for Windows, to place weights on the sailor's preferences, then rank each command based on these preferences. The majority of the students struggled to complete the task, and noted that it was a difficult task of making the best matches. Although this exercise was simplified to accommodate the level of experience of the

students, it demonstrated the challenges faced by those who make assignments.

B. BACKGROUND AND REASON FOR THE STUDY

As noted previously, in a recent exit survey conducted by the Marine Corps regarding retention and quality of life, roughly one-third of the Marines who responded revealed that they were leaving the Marine Corps because of their unhappiness with the assignment choices that they were offered. Additionally, during several interviews conducted with Operating Forces Marines, there were several examples of dissatisfied Marines who endured unwanted assignments because they were forced into them with little input. Some endured quality of life strains upon their families because they chose to live in separate geographic regions to avoid financial hardship.

During interviews with one Marine Officer within the Enlisted Assignments Branch, he revealed that over 25% of orders are returned for modification or cancellation. This is, in part, due to the indecisiveness of the Marines, but at times, also because Monitors are pressured to fill vacancies. Monitors are at times overwhelmed by the amount of message traffic that is targeted towards their e-mail systems, phone lines and personal visits. Marines in the Operating Forces are often frustrated by the lack of information available, and the inability to contact their monitors. Some of the Marines interviewed claimed that they had to be of a certain rank to talk with the monitor directly.

The current Marine Corps assignment process is being automated with current information technology (IT)

developments. Decision Support Systems are being implemented in the form of the Monitor Assignment Support System (MASS) that minimizes much of the manual labor required within the process. With the introduction of MASS, and future developments, IT may someday make routine matches between Marines and commands, minimizing the need for monitors, thereby allowing them to focus on more complex assignments.

One of the most glaring comments from Marines interviewed is that the monitors are "biased." The bias is towards their cronies, and assignments based on the pressure received from commands. Other comments included the lack of information available regarding future assignment availability. Marines would like to be able to view available jobs, and perhaps make rapid decisions instead of having to make contact, often through another Marine in his or her chain of command. Although Marines can now express their preferences through the Marine Online website, many of the monitors are not using this to view the Marines' preferences. Instead, some use the Marines' performance evaluation report, the Marine Corps Total Force System (MCTFS)² or telephone calls from the Marines or their representatives to determine the Marine's preferences. The lack of information, the effects of the process on retention, and quality of life issues are all reasons for conducting this study.

² The Marine Corps Total Force System is an automated administrative management program that administrative sections use to communicate Marine duty assignment preferences.

C. RESEARCH QUESTIONS

1. Primary Research Questions

- What are the perceptions from the Marine Corps Operating Forces regarding the current assignment process?
- Does the Marine Corps need new tools to improve the assignment process?
- What new tools can be introduced to make the process more efficient?

2. Secondary Research Questions

- What are the common trends within the questionnaires and interviews?
- What are the shortfalls of the current assignment system?
- Will the new tools being implemented further assist Marines or create problems?
- What are the underlying considerations for Marines when deciding where to go?

D. LIMITATIONS

Based on the time and resources available for this thesis, every attempt was made to obtain the most accurate and updated information on the Marine Corps Enlisted Assignment process. Much of the information used in this thesis comes from Fecteau's study in 2002 of the Marine Corps Enlisted Assignment process. Additionally, there is no system in place that collects objective data to measure customer satisfaction. The information provided is from subjective questionnaires and informal interviews conducted with Marines within the Marine Corps Operating Forces. Every attempt was made to obtain interviews from Marines of all backgrounds, occupational specialties, units and varying geographic locations.

E. SCOPE AND METHODOLOGY

1. Scope

The scope of this research includes:

- Survey literature in previous and current theses, books, magazine articles, presentations and other information resources
- Review of Marine Corps assignment directives
- Review of current policy, and interviews with personnel within the Marine Corps, Enlisted Assignments Branch
- Review of the Monitor Assignment Support System and the Navy's Job Advertising and Selection System
- Interview with Marines and conducting group discussions with Marines from the Operating Forces
- Analyzing the questionnaires issued to Marines during the interview phase of the research

2. Methodology

The basis for this research lies in the perceptions of those enlisted Marines who have used the assignment system several times during their careers. Therefore, the majority of this research will focus around their opinions of the current assignment system. Questionnaires were distributed to focus groups of ten Marines per session. All of these groups came from units within California. Small pilot groups were interviewed from the Defense Language Institute (DLI), Monterey, California and Recruiting Substation, Salinas, California. Primary interviews occurred at the Marine Corps Recruit Depot, San Diego, California and included students from the Marine Corps Drill Instructor School and a group of instructors from the Marine Corps Recruiting School. The remainder of the Groups consisted of Marines from the First Marine

Division, Camp Pendleton, California and the Marine Corps Logistics Base, Barstow, California.

F. ORGANIZATION OF THE STUDY

Chapter II consists of the literature review focusing on hierarchical planning and market efficiency. Chapter III describes the current Marine Corps distribution process, and the current policies in place that govern assignments. Chapter IV describes the results of the questionnaires and interviews conducted within the Operating Forces. Additionally, trends, both positive and negative, will be highlighted within this chapter, and an analysis of these trends will be conducted. Chapter V compares the Navy's Job Advertising and Selection System to that of the Marine Corps' Assignment Support System. Each will be reviewed for its strengths and weaknesses. Finally, Chapter VI will amplify the findings of the study and make recommendations for further research.

II. LITERATURE REVIEW AND LABOR MARKET ECONOMICS

A. OVERVIEW

This chapter describes former research conducted on the military assignment processes, labor market economics, and efficiency of the assignment processes. A review of Naval Postgraduate School (NPS) theses of the Navy and Marine Corps assignment processes, along with studies by Professors Bill Gates and Mark E. Nissen, have examined the possibility of a U.S. military-wide job-assignment system that concentrates on the possibility of implementing web based intelligent agent job assignment processes. Their paper, "An Empirical Investigation of E-Employment Market Designs" provided useful background for our research. Their paper describes labor market economics related to job assignments, and intelligent agent technology to maximize the satisfaction of commands and sailors. References from their research will be used as background for this thesis. A description of market efficiencies in the job assignment process will be discussed in the latter part of this chapter.

B. LITERATURE REVIEW

Fecteau (2002) analyzed the Marine Corps Enlisted Assignment process in terms of the command's perspective. She conducted a thorough review via phone and personal interviews with monitors regarding the Marine Corps HRDP and enlisted assignment process. She found that the current enlisted assignment process of the Marine Corps accomplishes its basic mission: assigning Marines to billets. However, this assignment process suffers from inefficient and ineffective procedures that do little to

accommodate a Marine's personal preferences, and may possibly compromise Marine Corps personnel readiness. In addition, the assignment process is hindered by bureaucracy, red tape, and excessive paperwork that frustrates Marines, monitors, and commands. She recommended that the Marine Corps should:

- Develop an online, real-time, interactive tool, enabling Marines to view available billet openings then submit assignment preferences
- Implement a comprehensive assignment system software with compatible interfaces for complete information integration
- Consider video tele-conferencing technology to facilitate open and interactive communication between monitors and Marines

Short (2000) analyzed the Navy enlisted assignment process. She analyzed survey results of Opinion Research Corporation (ORC) Macro, the Navy-wide Personnel Survey. The Navy's enlisted detailing process accomplishes its mission: assigning Sailors to billets. Yet it may do so without optimizing efficiency and effectiveness. The Navy introduced the Job Advertising and Selection System (JASS), an automated interface designed to provide increased job visibility to sailors and reduce the workload of detailers,³ but JASS has not gained Navy-wide acceptance as its proponents had hoped.

To more effectively and efficiently match sailors to jobs, detailers need easy-to-use, state-of-the-art information systems that are continuously updated. Short suggested a single decision support system, designed to support detailers with the numerous requirements of the

³ Detailers are the equivalent in the Navy to the monitors in the Marine Corps.

Navy and sailors, significantly enhancing their efficiency and effectiveness within the enlisted detailing process.

Suan Jow Tan and Chee Meng Yeong (2001) analyzed the sailor utility caused by assignment in terms of a two-sided matching model. They compared the results of four detailing exercises that NPS students and detailers executed. They found that the two-sided matching algorithm was able to generate between 18 - 20% improvement in utility over that of the average human detailer.

C. LABOR MARKET ECONOMICS

Presently, there are two methods of matching people with jobs; (1) hierarchical planning and (2) distributed markets. Patterned after centrally-planned economies and command-and-control (e.g. military) organizations, the former approach remains prevalent for matching job candidates to jobs within the current enterprise. The U.S. Marine Corps currently uses a hierarchical assignment process to match Marines with billets that may cause both commands and individual Marines dissatisfaction for the sake of fulfilling the needs of the organization.

On the other hand, the distributed market-based approach supports unrestricted, point-to-point matching between potential employees and outside employers. Workers try to maximize their utility and employers try to maximize their profits (Ehrenberg and Smith, 2000). In this situation, information overload associated with the requirement to search through, screen, and filter vast amounts of job opportunities becomes problematic and makes it difficult to maximize employer/employee satisfaction.

Evolving information technology provides potential alternatives for the job-matching processes to be achieved more effectively and efficiently. For example, using web-based markets within the firm, and intelligent agents offer an excellent potential to increase the happiness of both potential employees and employers.

1. Market Based Approach

The distributed market-based approach to matching employees with employers draws on labor supply and labor demand, and what is now a textbook understanding of labor economics. (Ehrenberg and Smith, 2000) Figure 1 shows market demand and supply for a specific labor market. "The market demand curve indicates how many workers employers would want at each wage rate, holding capital prices and the product demand schedule constant. The market supply curve indicates how many workers would enter the market at each wage level, holding wages in other occupations constant."

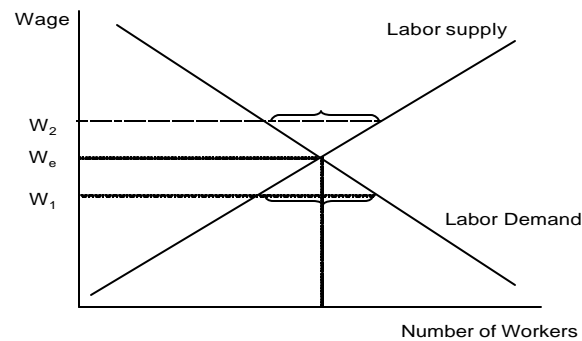


Figure 1. Market-Based Labor Markets (From: Ehrenberg and Smith, 2000).

If market wages were set at W_1 , demand would exceed supply. Demand is large but supply is small. At this wage rate, employers compete to hire workers, and a shortage of workers would exist. The desire of firms to attract more employees would lead them to increase their wage offers, thus driving up the overall level of wage offers in the market. As wages rise, two things would happen; first, more workers would choose to enter the market; second increasing wages would induce employers to look for fewer workers.

If wages were set at W_2 , supply would exceed labor demand. Employers would seek fewer workers than the available workers. Some employees would not be able to find jobs. Employers would find that they could fill their openings with qualified applicants even if they offered lower wages. Furthermore, if they could pay lower wages, they would want to hire more employees. Some workers would accept lower wages while others would leave the labor market. Thus, the supply and demand would become equal.

Wage rate W_e is the market equilibrium wage or market clearing wage. At this wage, employers can fill vacancies, and all employees who want to work in this market can find a job. There is no surplus or shortage of labor. The market-clearing wage is the wage that eventually prevails in a freely operating market. If wages were below W_e , employers would increase wages to fill vacancies resulting from the shortage of workers. If wages were above W_e , the surplus of labor would cause a downward pressure on wage rates. Thus, wage rates are determined by the market and announced to individual market participants.

On the other hand, workers try to maximize utility. This means that they are interested in both the pecuniary and the non-pecuniary aspects of their jobs. Some jobs have good environmental conditions, while others may have greater risks or more hazardous environments. Some jobs may be located near the employee's home while others are not. Some employers permit employee discretion over the hours or the pace of work. Some employers may provide better employee-benefits than others. Employees also have different preferences for these job characteristics. Some would prefer geographic location to promotion possibilities. Others may prefer higher wages to a desirable work environment. Therefore, workers choose jobs that maximize their personal utility, depending on personal job preferences.

2. Hierarchical Labor Markets

Hierarchical labor markets assign individuals to jobs using a centralized process, (Gates and Nissen). Government agencies and the military's labor detailing process are included in the hierarchical labor markets. Hierarchical job assignments must rely on administrative procedures to match individual capabilities and job requirements and to reflect both the job's relative priority and the individual's job preferences. At one extreme, employers can assign employees without regard to their preferences. Employees can either accept the assignment or find alternative occupations. This approach emphasizes the employer's performance at the expense of employees' morale.

At the other extreme, employers can emphasize individual job preferences relative to job priority, the match between employee skills and job requirements. This approach emphasizes employees' morale and satisfaction. There is no mechanism to balance supply and demand efficiencies, as in a market-based labor market. Therefore, it requires cumbersome administrative employee/job matching procedures, intensive information requirements and asymmetric incentives.

The Marine Corps uses a centralized, hierarchical labor market to assign Marines to jobs. Monitors in the Enlisted Assignments Branch are responsible for the job assignment of enlisted Marines. On the demand side, Marine Corps commands identify job vacancies. Monitors work as the command's advocate. They identify projected vacancies six months out. They attempt to find the best match between job requirement and personal capabilities, such as rank, military occupational specialty, and projected rotation date. Based on their personal experience and judgment, they assign Marines to billets. On the supply side, Marines are categorized according to qualifications including MOS and pay grade. Each Marine in the same MOS group contacts his or her monitor. Marines or their spokesmen then negotiate with the monitor to obtain their preferred duty type by providing personal preferences. However, monitors usually place priority on filling the billet rather than satisfying the needs of the Marine. The centralized assignment process of the Marine Corps tends to satisfy the demand side rather than the supply side.

3. Market Efficiency

In general, efficiency means "doing things right." Efficiency is composed of supply and demand efficiency. Market-based labor markets allocate labor to its highest valued uses (i.e., demand efficiency) and to the uses for which it is best suited (i.e., supply efficiency) (Gates and Nissen).

In the assignment process, efficiency can be defined as assigning the right Marine with the right rank, the right training, and the right skill to the right billet/command.

Supply efficiency is related to supplying Marines to the commands. Supply efficiency can be measured as a degree of satisfaction or happiness by their assignment result. Satisfaction of the assignment depends mainly on the duty type, geographical location, educational opportunities for dependent children and job opportunity for their spouses. Additionally, during our interviews with Marines, we found that the perception of fairness also can influence assignment satisfaction. Marines try to maximize their utility, i.e., satisfaction, when they consider their next tour. Marines tend to place a higher weight on their personal preferences that lead to assignment satisfaction. After all, assignment satisfaction might increase morale, and performance, so it can increase personnel readiness. Our research will focus on supply efficiency, that is, the customer's perspective.

Demand efficiency deals with the command's satisfaction. Commands prefer to receive properly trained Marines with the right pay grade, MOS, and previous

outstanding performance to successfully accomplish their Marine Corps mission. In the current assignment environment, Marine Corps monitors are more interested in increasing demand efficiency, that is, the command's satisfaction. Since the current Commandant of the Marine Corps, General James Jones, took over, he gave guidance to all Marines that they should, when operationally possible, say "yes" to Marines. With that guidance, monitors have shown an increase in attempting to say "yes" to Marines by providing Marines lists of jobs available, but they usually work to satisfy the needs of the command.⁴ After all, demand efficiency affects the personnel readiness of the Marine Corps, which has a critical impact on accomplishing the mission of the Marine Corps.

The military can increase both supply and demand efficiency by introducing a two-sided matching market (Gates and Nissen). So far, without a hierarchical assignment system, the Marine Corps would find it difficult to fill many of its critical jobs. The Marine Corps could benefit from the efficiencies associated with a market based-system. A two-sided matching market system assigns individuals to jobs when there are several possible employers and employees. The matching algorithm balances the preferences of both the employers and employees, but it can produce assignments that give priority to either employers or employees. As such, the algorithm specifically addresses both demand and supply efficiency.

⁴ The billets available are displayed in the monitor's web page under "Hot Fills." These are vacancies that are hard to fill. Monitors receive e-mails from interested Marines, then review the Marines status and either contact the Marine via e-mail or they do not respond if the Marine is unqualified.

Perhaps the Marine Corps can use a two-sided matching market in making assignments.

III. MARINE CORPS MANPOWER PROCESS

A. HUMAN RESOURCE DEVELOPMENT

Before discussing the assignment process, specifically, it is important to understand the Human Resource Development Process (HRDP) within the Marine Corps. Figure 2 below will illustrate the Marine Corps Manpower Process. Much of the information in this chapter is taken directly from Fecteau (2002).

The Marine Corps is a Concept-Based organization that produces capabilities through the Expeditionary Force Development System:

The Expeditionary Force Development System is a four-phased integrated system of processes and functions that produce and sustain integrated capabilities that meet the needs of the Marine Corps. Phase one consists of developing concepts and identifying needs and capabilities, beginning with the Commandant's vision and strategy. Phase two consists of requirement development, beginning with the receipt and registration of the Universal Needs Statement (UNS)⁵ into the Combat Development Tracking System (CDTS) by the Marine Corps Combat Development Center. Requirements specify what is needed to realize a capability. Phase three consists of the prioritization and sourcing of the most critical material and non-material requirements. Phase four consists of capability fielding and transition. Once resources have been allocated, material and non-material solutions and supporting actions are executed (MCO 3900.15A, 2002).

The Total Force Structure Division (TFSD) takes input from the Expeditionary Force Development System (EFDS), and

⁵ UNS is a document submitted by Marine units to MCCDC in order to identify needs from the field.

then based on several constraints, develops a force structure for the new requirements, which are next documented on tables of organization and equipment (T/O&E). This process enables the organization to identify a requirement. The Commanding General, Marine Corps Combat Development Command (MCCDC), specifically the TFSD, manages the T/O&E.

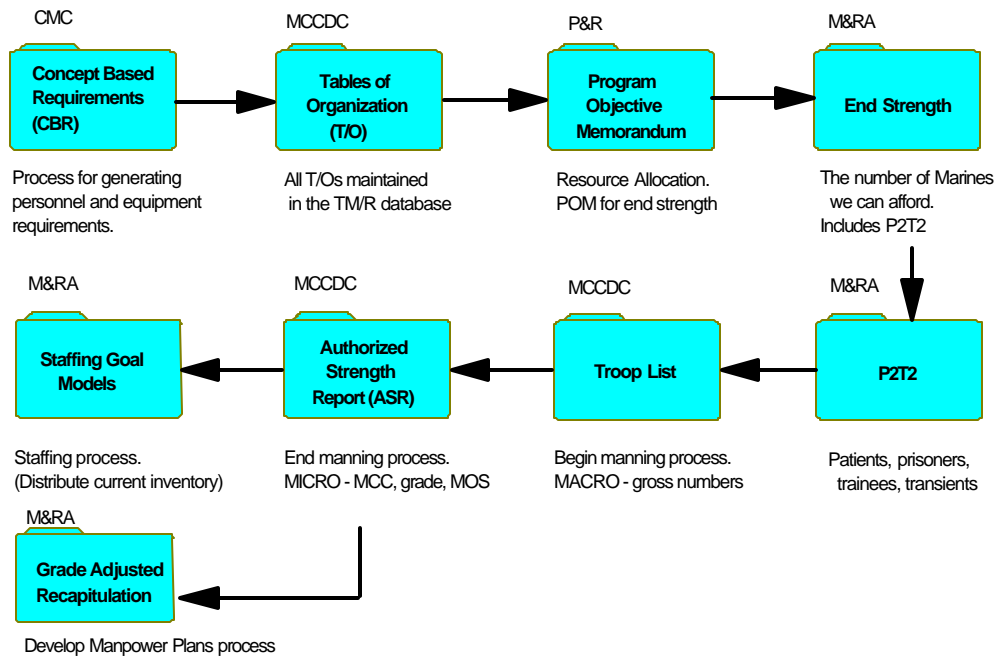


Figure 2. Marine Corps Manpower 101 (From: Manpower 101 Brief, 2002).

Tables of Organization and Equipment are documents disseminated to all units within the Marine Corps. They contain a mission statement for the unit and a line-by-line organizational list that displays the unit's wartime personnel and equipment requirements. The T/O&Es are managed using a decision support system called the Table of

Manpower Requirements (TMR), a database that is updated daily, and hard copies of the tables are published twice a year, normally in October and February. At present, there are plans to upgrade the current TMR to a new system that will streamline and enhance the current system. Fiscal constraints must be accounted for following the T/O&E development.

As with all service branches within the Department of Defense, there is a balance between what is required and what is affordable. This process is balanced through the Program Objective Memorandum (POM). The Programs and Resources Department manages the POM. The "POM building" is a fiscal process requiring the Marine Corps to estimate what is needed fiscally to perform its missions according to the National Strategy, and subsequently, the National Military Strategy. End-Strength is a component of the POM building process that introduces a constraint.

End-Strength is a congressionally mandated force size target that is measured at the end of the fiscal year. A two percent ceiling and a one half percent floor exists that the Marine Corps is required to be between. Normally end-strength is monitored throughout the year, but the only time that the ceiling or floor cannot be violated is at the end of the fiscal year, September 30 (Edwards 2003). End strength is often deceptive because it is not an inventory of distributable Marines, but a sum total of every Marine on active duty. Within this total sum is a category that includes Patients, Prisoners, Trainees and Transients, (P2T2).

Within P2T2, the Marine Corps accounts for patients, including those Marines who are sick or injured, prisoners, which includes Marines who are incarcerated, and those awaiting the appellate process after they have been recommended for discharge. The third portion is trainees, including, for example, all the recruits at the Marine Corps Recruit Depot and the students at the Naval Postgraduate School. There are also transients, including all Marines who are in transit from one duty station to the next. P2T2 accounts for approximately 16-17% of the distributable inventory (Edwards 2003). Table 1 below displays the differences between what is budgeted and what is actually available for distribution after P2T2. Now that end-strength and P2T2 are defined, the manning process can begin. One challenge that arises for those who have to distribute personnel inventory is that the Marine Corps only has approximately 93% of personnel available to fill the entire T/O structure.

During the manning process, two documents begin the staffing process: the Troop List and the Authorized Strength Report.

MANNING CATEGORY	TOTAL
BUDGETED END STRENGTH	175,000
AVERAGE MAN-YEARS	174,900
P2/T2	30,400
AVAILABLE MANNING	144,500
T/O STRUCTURE	154,000
MANPOWER DELTA	-9,500
OVERSTAFFS	-500
ACTUAL T/O SHORTFALLS	-10,000
UNCOMPENSATED SHORTFALL	-700
MANNING %	93.05%

Table 1. Total Force Manning Percentages.

The Troop List and the Troop List process determines how many officers and enlisted Marines a unit is allocated in a given POM year. The Troop List can be thought of as a macro view. This document does not list the Marines by grade or MOS. It does, however, specify the structure and manning of the Marine Corps at the battalion/wing or company/squadron level. Marines are distributed within five elements, Support Element (SE), Ground Combat Element (GCE), Aviation Combat Element (ACE), Combat Service Support Element (CSSE), and Command Element (CE). Each element is staffed with the following percentages of their T/O: SE 100%, GCE 91.5%, ACE 92.3%, CSSE 91.6%, CE 92%. This is based on a staffing precedence, prioritizing commands into three categories: excepted, priority and pro-share. Excepted units are manned at 100% of their T/O, priority units are manned at 95% of T/O, and pro-share

units receive the remainder of the manning (MCO 5320.12D, 2001).

After the Troop List has allocated Marines across each of the units and elements, the process produces an Authorized Strength Report (ASR). The following extract defines the ASR:

Authorized Strength Report (ASR). The ASR contains a recapitulation by grade and primary military occupational specialty (PMOS) of the manpower authorized to each monitored command code (MCC). The ASR is normally updated in April, August, and December and incorporates the most recent decisions affecting the Marine Corps' structure. The ASR consists of a percentage of tables of organization (T/O) billets (known as manning level) for all Fleet Marine Force (FMF) commands and 100 percent of T/O for non-FMF commands (MCO 5311.1C, 1999).

In effect, the ASR converts the Troop List from the macro level to the micro level, which defines each Marine by grade and MOS. The ASR also links the Marine Corps Combat Development Center, specifically the TFSD, with Manpower and Reserve Affairs (M&RA)--Manpower Planning (MP)--Manpower Management Officer/Enlisted Assignments (MMOA/MMEA). Within the Personnel Management Division, the MMOA/MMEA then uses the ASR in their staffing goal models to distribute the appropriate inventory. The Manpower Integration and Analysis section within the MP division uses the ASR to produce the Grade Adjusted Recapitulation (GAR). The GAR predicts the number of accessions in each Military Occupational Specialty (MOS) to increase the appropriate number of Marines needed in each grade in the future. The GAR is published annually and adjusted periodically so that it reflects the total Marine Corps

Manpower Requirements at the end of the projected fiscal year. Finally, while the GAR is being produced, the staffing process continues towards the distribution of current inventory. This is the step of the manpower process that will be analyzed. The Manpower Management Enlisted Assignments branch is responsible for placing the right person with the right skill at the right time in the right billet. This process is better known as the staffing process.

B. THE STAFFING PROCESS

1. MMEA Organization

The staffing process distributes the inventory. Those who are primarily responsible for making assignments are the enlisted assignment monitors, located within MMEA-8, a section within MMEA. Before discussing the details of the staffing process, it is important to understand the organizational structure of the MMEA. Figure 3 below contains the current organizational structure of MMEA. MMEA-1 is the Enlisted Distribution Section, which contains three sub-units: 1) MMEA-11, Recruit Distribution Unit, is responsible for classifying and distributing all enlisted recruits to their PMOS producing schools; 2) MMEA-12, Command Distribution Unit, oversees MMEA assignment operations by observing overall staffing distribution at the unit level; 3) MMEA-13, Enlisted Readiness and Analysis Unit, monitors the impact of staffing distribution plans and execution on unit readiness.

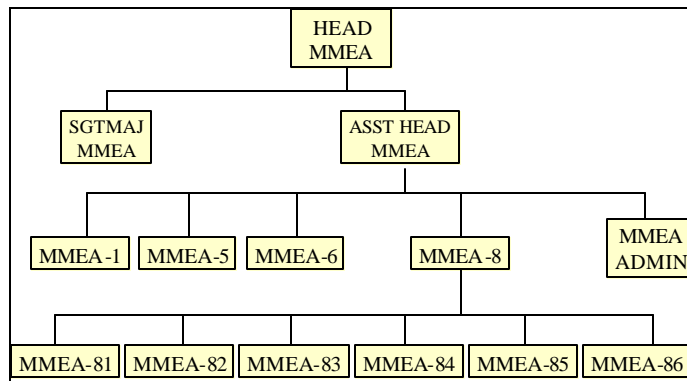


Figure 3. MMEA Organizational Structure (From: Fecteau 2002).

MMEA-5, System Support Section, provides direct support to MMEA for branch information systems and serves as a liaison to higher echelon IT and systems support when required. This section maintains the Enlisted Staffing Goal Model (ESGM), the Enlisted Assignment Model and the Web Orders System.

MMEA-6, the Enlisted Retention Section, consists of three sub-units: 1) MMEA-61, Reenlistment Unit, which is responsible for active duty reenlistments and extensions; 2) MMEA-62, the Career Planning Unit, which selects and directs Marines to career planning duty; 3) MMEA-64, the Enlisted Career Counseling and Evaluation Unit, which provides performance counseling to career Marines.

Finally, there is MMEA-8, the section responsible for assigning all enlisted Marines. MMEA-8 is organized to reflect the Marine Corps Air Ground Task Force with six sub-units within this section: 1) MMEA-81, the Sergeant Major/First Sergeant Monitor unit, assigns and manages careers for all Marine first sergeants and sergeants major;

2) MMEA-82, The Combat Arms Monitor Unit, assigns and manages careers for approximately 51,000 active duty enlisted Marines within the combat arms Occupational Field (OccFld); 3) MMEA-83, the Service Support Monitor Unit, assigns and manages careers for roughly 45,000 active duty enlisted Marines within the service support OccFld; 4) MMEA-84, Aviation/Communication Monitor Unit, assigns and manages approximately 45,000 active duty enlisted Marines within the aviation/communications OccFld; 5) MMEA-85, the Special Assignments Unit, assigns and manages active duty enlisted Marines for special duty assignments such as Marine Security Forces, Recruiting Duty and Drill Instructor Duty; and finally 6) MMEA-86, the Humanitarian Unit, assigns, coordinates and manage humanitarian transfers.

Now that the organizational structure has been explained, the staffing process can be discussed. Part of the staffing process involves tools that are available to the monitors.

2. Classification and Assignment Documents

Monitors use various tools that help them accomplish their tasks. Among those tools are documents that assist them with daily assignment decisions. Those documents are known as classification and assignment documents (C&A). Marine Corps Order 1300.31A defines the objectives of the C&A process as: 1) provide HQMC, specifically M&RA and field commands, with a common point of reference in the manpower process; 2) provide manpower managers with statistical information to develop manpower plans and policies; 3) provide field commands with information regarding the status of enlisted personnel as reflected in

the Joint Uniform Military Pay System/Manpower Management System (JUMPS/MMS), billet authorizations, enlisted staffing goals; and 4) provide manpower managers and planners at HQMC and personnel officers in the field with a common set of documents to assist them in accomplishing their respective missions (MCO 1300.31A, 1992).

Throughout the Marine Corps, there are daily transactions occurring within the JUMPS/MMS. Administrative sections, specifically unit diary clerks, make data entries, called unit diary entries. Weekly extractions occur from JUMPS/MMS to the Headquarters Master File (HMF). The most current HMF is used in each C&A process.

The C&A process produces four documents including: 1) The Command Distribution Report (CDR), 2) The Enlisted Assignment Listing (EAL), 3) The Enlisted Personnel Availability Digest (EPAD), and 4) The Special Enlisted Assignment Listing (SEAL). The CDR and EAL are both generated for the command's use, while the EPAD and the SEAL are used by the MMEA exclusively.

Both the CDR and EAL are organized using monitor command codes (MCC). The CDR provides statistical manpower summaries for every MCC. The information includes authorized billet counts reflected in the current ASR, staffing goal data from the Enlisted Staffing Goal Model (ESGM), and on-board population counts derived from the most recent HMF. Additionally, the EAL contains a by-name listing of all enlisted Marines assigned to that particular MCC.

The EAL contains over 30 data elements on each individual Marine, and is organized using the Primary Military Occupational Specialty (PMOS). Command personnel losses are displayed by the month of loss, and are identified by type: orders out of the command, expiration of active service losses, and rotation tour date. Gains to the commands are also listed by the month of the gain, identified as either on orders or en-route to the command.

The two remaining classification and assignment documents are the EPAD and the SEAL, which are both used extensively by the monitors. The EPAD provides statistical tabulations of Marine Corps manpower requirements, authorized billets, and current personnel inventory, and is organized by PMOS sequence. The EPAD is summarized by OccFld with a total Marine Corps summary printed at the end of the document. Information for each report is displayed by grade and is divided into four categories reflecting manpower requirement data provided by manpower planners and current inventory information taken from the HMF. The categories are: 1) Manpower Requirements, expressed as the GAR; 2) Authorized Billets, taken from the current ASR with counts by grade regarding how many billets are authorized for excepted, priority and pro-share commands;⁶ 3) B-billet Allocations, derived from the most recent ESGM; and 4) Current Inventory, information regarding the current enlisted population extracted from the most current HMF using C&A document extract logic.

⁶ Excepted units are manned at 100% of T/O, Priority units are manned at 95% of T/O and pro-share units receive the remaining personnel after excepted and priority units.

The SEAL is identical to the EAL in format, organized by PMOS sequence, and within PMOS by MCC, for use by enlisted assignment monitors. This report is used as a notebook for the monitors to annotate daily changes once they make assignment decisions. Monitors make annotations daily, and then submit those changes to the clerks within the section who make entries into the system that reflect the monitor's assignment decision. The old SEAL is then reconciled with the new one to ensure all changes were entered. This is one of the labor-intensive tasks of the enlisted assignment monitor. There is a potential for MASS to streamline this process, giving the monitor more time to spend on the phone or answering e-mails. Next, the models used by MMEA are discussed to determine what units are to be manned with what personnel.

3. Enlisted Assignment Models

The staffing process actually begins with the ESGM. The ESGM is a decision support system that assists the monitors by optimizing the distribution of inventory to units based on grade, PMOS and staffing policies. This model is also used to 'game' changes in assignment policy or staffing. In addition to the ESGM, the Marine Corps developed an Enlisted Assignment Model (EAM) in the late 1970's. This model consists of 16,000 user-defined logical expressions that make the model flexible but hard to manage. It was used briefly, but it is no longer a viable tool because monitors found it to be too complex, leading to inaccurate recommendations. Finally, monitors are now beginning to use the Monitor Assignment and Support System, developed in 1998, to assist in streamlining the assignment process through automation and centralized tool sets.

During our visit to MMEA, we noted that the enlisted monitors were beginning to use the Marine Assignment and Support System, but some were still using manual C&A documents, specifically the SEAL, to make changes or annotations. At the time of our visit, the officers within MMEA noted that they were behind in the transition from the old process to the use of MASS in making assignment decisions. Chapter V will further study the potential of MASS, and compare this system to the Navy's Job Advertising and Selection System. Regardless of how assignment decisions are made, the ESGM tells the monitors where to place the inventory, and thus, the assignment process begins.

C. THE ASSIGNMENT PROCESS

1. Decision Making Approaches

Within MMEA-8, there are 38 enlisted assignment monitors who manage and distribute approximately 157,000 Marines. They perform two basic functions, make assignment decisions or matches between Marines and commands, and produce orders instructing Marines and commands to execute the match. Monitors used to spend considerable time on the Automated Order Writing Process (AOWP). However, as of November 2002, the Marine Corps implemented a new web-based order writing process that reduced the process time from two days to a process that now takes minutes. The focus will now be on the assignment decision function.

Monitors take two approaches when making assignment decisions. One is proactive and the other is reactive. Reactive assignment decisions occur when unforeseen events cause billet vacancies or when it is necessary to transfer a Marine. Personal situations change rapidly for Marines.

One of the most common situations that create a "reactive" assignment is when a Marine or a family member needs special medical attention. In such cases, humanitarian transfers are warranted, and they create unforeseen gaps that create ripple effects throughout the system. Normally, humanitarian transfers are a fraction of a percent of the assignment decisions occurring within MMEA. Proactive assignment decisions are more often the normal routine for the assignment monitors.

To avoid billet gaps, monitors try to identify projected billet vacancies in advance. Usually this creates a smooth transition for those being replaced and enhances the unit's readiness. Monitors use the SEAL as the primary tool to proactively manage billet requirements. As soon as the monitor begins a conversation with a potential mover, he immediately views the Marines personal information through MCTFS, using the SEAL to record any assignment actions. The SEAL is sequenced by PMOS. Therefore, it allows the monitor to view current billet vacancies for 3 to 7 months out. Monitors spend several hours daily scanning the SEAL and making annotations of the day's activities.

Based on the staffing precedence set forth in MCO 5320.12D, which defines the priority for manning units in the Marine Corps, monitors will first satisfy those billets within excepted commands or commands required to be staffed at 100%, and then continue with those of lower priority. As Marines are identified to fill vacancies, monitors make changes in pencil on the SEAL. Every month, annotations are entered into the C&A process where changes are

recorded. The monitor receives a new SEAL monthly, which must be reconciled, to ensure that the submitted changes were recorded. Monitors, once again, spend countless hours reconciling the SEAL. This is one of the major areas where automation could reduce manual labor to be discussed in more detail in Chapter V.

Up to this point, Marines requesting transfers have very little input or information on what is available to them. Monitors work in the interest of the Marine Corps, filling vacancies. So, how do the monitors decide whom to assign to a particular billet? Here is where the experience of the monitors enables them to balance the needs of the individual Marine with those of a particular billet. The monitor uses various information sources. Some of the monitors we interviewed use the MCTFS initially, and as they learn information about the Marine, they begin to flip through the SEAL. One common monitor complaint is that Marines most often fail to identify their wants. Monitors must probe Marines or make recommendations on what billets would be beneficial to the Marine. Monitors also use the billet preferences that Marines are able to submit through MCTFS. Although Marines are allowed to submit preferences in MCTFS, currently there is little opportunity and no system in place that allows Marines to enter their duty preferences. Why is there no system for Marines to enter duty preferences or bid for duty stations?

There are several reasons why Marines do not provide input. First, there is no system for the Marines to view all billet vacancies. Marines can view a "Billet Hotfill" on the monitor's web page, but these are only billets that

require immediate attention. Second, the current manpower system allows limited communication from the Marines regarding billet preferences. The only input Marines make is through the MCTFS where Marines can enter their geographical and unit preferences. The Marine Corps Total Force System does not capture specific billet requests. Third, monitors make yearly visits to bases throughout the world, meeting Marines face-face, making assignment decisions based on 10 to 15 minutes worth of conversation. Finally, Marines are now able to go to the web, specifically to the Marine OnLine (MOL) web site, to update information or correspond with their monitor. Many of the Marines we spoke with do not use MOL. Thus, with little input from Marines, the result usually remains a one-sided match.

2. Decision Making Considerations

Currently, monitors have no system to collectively consider all the factors that are in place, such as those displayed in Figure 4 below. As they process decisions, they consider a myriad of factors that are often conflicting. Monitors also receive outside pressures from command representatives who attempt to "fix" their personnel problems by talking with the monitor directly to influence their decisions. These pressures create more problems for the monitors as they attempt to perform their duties.

In addition to the monitor's considerations, there are several more factors to incorporate, as stated in MCO P1000.6, the Assignment, Classification, and Travel System Manual (ACTS), paragraph 1200. The list of those factors is as follow:

- Qualified Volunteer
- The Marine's preference

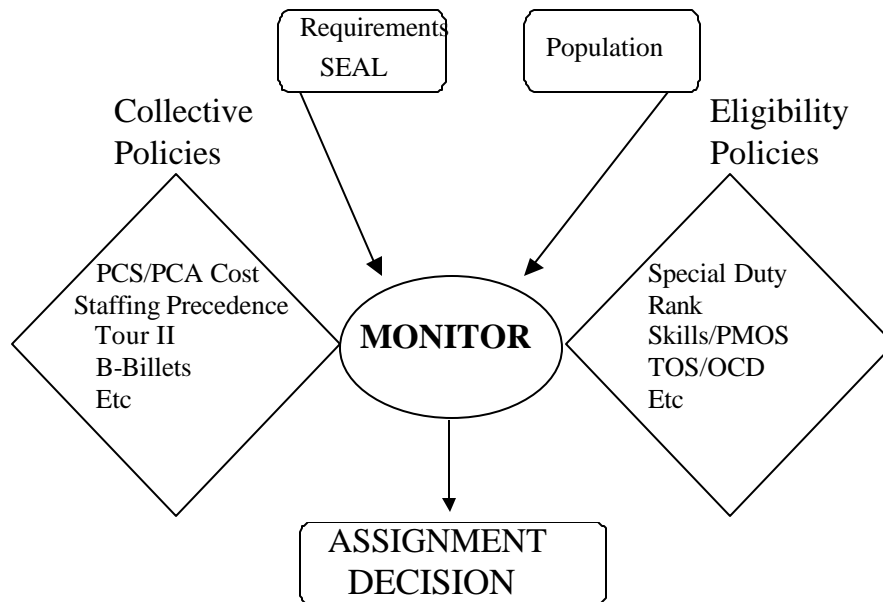


Figure 4. Monitor's Considerations (After: Fecteau 2002).

- The Marine's capabilities/qualifications
- The impact of the assignment on the Marine's career development
- The recommendations of reporting seniors
- The possibility of personal hardship
- The Marine's time on station and obligated service
- The assignment is made without regard to race, creed, or gender (unless otherwise prohibited by the provisions of MCO P1300.8)

Monitors attempt to make the best matches, placing Marines with the appropriate rank, training and skills by using the MCTFS. MCTFS is accessed using an emulator known as '3270.' While monitors ensure the 'right' Marine for

the billet, they are also concerned with the priorities set in the staffing precedent order. Excepted and priority command billet vacancies must be filled without exception. One of the most stringent factors when monitors make assignment decisions is the Time On Station (TOS) requirement.

With few exceptions, monitors maintain the TOS requirements. The TOS requirement created one of the greatest obstacles for the author's personal efforts to obtain a replacement for his training chief during his time as an Inspector-Instructor in support of the Marine Corps Reserve Force. TOS is a key eligibility requirement that ensures cost management by keeping Marines from making costly PCS moves before they have completed a certain number of years with a unit, or completed overseas deployments.

3. Additional Factors in Decision Making

Unlike other service assignment coordinators, Marine monitors are also career managers. In this capacity, monitors ensure that Marines are given equal opportunity for career enhancing billet assignments. They equalize time for Marines between Operating Forces billets and Non-Operational billets to reduce hardship on the Marines and their families. They attempt to time transfers between units to ensure that Marines are not placed in situations where they experience negative quality of life issues. For example, monitors make all attempts not to send Marines from one deploying unit to another, especially for married Marines. Monitors also consider family issues that Marines consider important. Monitors often issue orders during the summer, at the end of the school year or during the winter

break, to minimize the impact of the move on school-aged children. All of these factors are just a sampling of what the monitors have to consider when making assignments.

Thus, what about the Marines looking towards a new duty assignment? One of the resounding complaints from the monitors we interviewed was that Marines quite often failed to plan for the conversation. Normally, Marines at the ranks of sergeant and above contact their monitors directly. They often seek advice from their senior enlisted representative before making decisions. Units with proactive Officers and Staff Non-Commissioned Officers, provide Marines an abundance of advice. Experienced Marines within commands provide a better perspective for managing those Marines within their command. They often provide a liaison between the Marine and the monitor. This liaison is sometimes welcome, while at times, it creates problems for the monitors who have to listen to the Marine's advocate instead of the individual Marine.

So what does the Marine consider when making an assignment decision? As noted earlier, there is no system to transmit preferences to the monitors. However, Marines can communicate with the monitor, and at times, negotiate for certain billets if the fill meets the monitor's requirements. Marines have at times conflicting concerns compared to those of the monitors. Chapter IV explores some of the most common concerns among Marines when they consider their assignment choices.

D. CHAPTER SUMMARY

The Marine Corps Human Resource Development Process is complex, and extends from several different divisions and sections, and ultimately to the Monitors who are responsible for making assignment decisions. The enlisted assignment process is difficult, at best, and there is no one system in place that simplifies the monitor's decision making processes. During our visit with monitors we observed extensive use of paper documents, such as the SEAL, even though they had a support system within their personal computers. The introduction of MASS and other IT tools has the potential to reduce the monitor's manual labor. However, if the tools are not used, then the result is an expensive system that is underutilized.

Effectiveness is defined as referring to how the process is conducted, whether it is cost effective, and whether, in this case, it is overly labor-intensive. Efficiency is defined as referring to how well the system provides a good match between personnel inventory and billet vacancies. Ultimately, the Marine Corps should strive for a process that is cost effective, not overly labor-intensive and results in the best match between Marines and billet assignments.

The current process is a one-sided matching process that ultimately affects the careers and lives of thousands of Marines, with little input from the 'customer.' The need to include Marines in the process by giving them more information and providing them the opportunity to make assignment choices will ultimately improve morale and unit readiness.

IV. RESULTS OF THE QUESTIONNAIRE AND INTERVIEWS

A. OVERVIEW

As mentioned in previous chapters, former studies found that a two-sided matching system could increase efficiency in the military assignment process. Those findings were usually based on the results of simulations that quantified the satisfaction of both the command and personnel in the experiments.

However, we wanted to approach the assignment process of the Marine Corps from another perspective. Are the Marines in the Operational Forces satisfied with the current assignment process? If Marines are content with the current process, then the Marine Corps may not have to change the current process. The cost of making changes, for example, implementing a web-based intelligent agent assignment system within the assignment process, may not meet the Marine Corps' return on investment. This point is supported by the observation that most monitors are satisfied with the current process, and that the Marine Corps has been achieving its retention goals (Fecteau, 2002). If not, the Marine Corps may increase quality of life by introducing new assignment processes or systems. These changes could also increase the retention rate of enlisted Marines', and ultimately improve personnel readiness.

To analyze the perception of the Marines toward the current assignment process, the Marines were asked 29 questions. Questionnaires included inquiries about personal characteristics, satisfaction with the current

assignment process, effectiveness of the communication medium used when interacting with monitors, information sources when considering the next duty assignment, assignment choices available when negotiating with the monitor, timeliness of Permanent Change of Station Orders (PCSO), and the Marines' job satisfaction. A sample handout of the questionnaire can be found in Appendix B.

Table 2 displays the composition of those Marines who submitted questionnaires and interviews. We intentionally chose to interview Marines from the ranks of E-5 and above because we wanted experienced Marines who had been exposed to the assignment process several times during their careers. Additionally, we wanted Marines who had experience negotiating with the monitors. Fourteen of the Marines interviewed were E-5, 35 Marines were E-6s, 34 were E-7s, 10 were E-8s, and finally, 2 Marines were E-9s.

We assume that none of these Marines were pre-selected for our interviews, and the commands assured us that the Marines were chosen randomly based on availability. Generally, this group can provide valuable information about the current assignment process. In terms of geographical location, 58 Marines were assigned to the First Marine Division, located at Camp Pendleton, California. Twenty-one Marines interviewed were either in a training course or instructors within the Marine Corps Recruit Depot (MCRD) in San Diego, California. Sixteen Marines were assigned to the Marine Corps Logistics Base (MCLB), in Barstow, California. Therefore, since all locations were in California, this sample of Marines does not reflect a geographically diverse group, due mainly to

the limited resources available to complete this study. This is one limitation of this analysis. Another limitation is that only two female Marines participated in the surveys and interviews, and the monitors whom we interviewed were also males.

On the other hand, every attempt was made to analyze Marines from different occupational specialties and units. Infantry Marines might have different perceptions from Marines working in administrative or logistics units. Table 2 is a summary of the ranks, occupational specialties and locations.

Rank	First Marine Division			MCRD		MCLB	Tot
	Infantry	Arty ⁷	Engr ⁸	Drill ⁹ instr	Recrtr ¹⁰		
E-5	3	0	0	8	0	3	14
E-6	12	6	8	1	0	8	35
E-7	12	6	1	1	11	3	34
E-8	7	1	0	0	0	2	10
E-9	2	0	0	0	0	0	2
Total	36	13	9	10	11	16	95

Table 2. Composition of the Survey Sample.

B. DESCRIPTION OF THE FINDINGS AND TRENDS

This section summarizes the results of our analysis of the questionnaire. The findings will be explained according to the types of questions asked. Questions are divided into four categories: the assignment process,

⁷ Artillery unit.

⁸ Engineer unit.

⁹ Marine students from the Marine Corps Drill Instructor School.

¹⁰ Recruiting School instructors.

perceptions about the monitor, information sources and effectiveness, and job satisfaction and career development.

1. Assignment Process

In general, survey results indicated that the Marines are satisfied with the current assignment process. Table 3 shows the overall perception of the Marines regarding the current assignment process. Sixty-one out of 95 Marines, about 64% of those surveyed, were satisfied with the current assignment process. When looking at satisfaction based on rank, lower ranking Marines are more satisfied than more experienced Marines. One possible reason is that less experienced Marines may not have had the same exposure to the process as the more senior Marines.

Often, more senior Marines have greater responsibilities, such as caring and providing for their families. They may have greater worries regarding their children's education, and spouse's employment opportunity. This difference is amplified by observing that only 50% of the married Marines with children were satisfied with the current assignment process as displayed in Table 9 later in this chapter.

During our interviews, there were also several comments questioning access to the monitors, choices available, information, and perceived monitor bias towards their friends.

Rank	Not satisfied	Satisfied	Very satisfied	Total
E-5	3 (21%)	10 (72%)	1 (7%)	14
E-6	13 (37%)	22 (63%)	0	35
E-7	13 (38%)	19 (56%)	2 (6%)	34
E-8 / E-9	5 (42%)	5 (42%)	2 (16%)	12
Total	34 (36%)	56 (59%)	5 (5%)	95 (100%)

Table 3. Are You Satisfied with the Assignment Process?

In our survey, 36% of the Marines are not satisfied with the assignment process. This indicates that there still is a need to improve the assignment process by investigating and solving problems that cause dissatisfaction.

Table 4 reveals some of the reasons why Marines were not satisfied with the current assignment process among those who answered 'not satisfied.' 72% of the Marines stated that limited choice availability created dissatisfaction. This was emphasized during the interviews, as Marines complained of having too few duty choices. Some said that they did not know the qualification requirements for jobs that interested them. They mentioned that they were willing to investigate potential duty assignments, but that they would like the process to be easier. The 0369 (Infantry) monitor stated that he expected Marines to take the initiative, and to make telephone calls to various units to ask about billet

vacancies. This action would enable him to make the assignment decision faster and more efficiently.

Rank	Information	Choices available	Timing	Location	Job	Total
E-5	1	1	0	0	1	3
E-6	2	10	1	0	0	13
E-7	0	9	2	0	1	12
E-8 / E-9	0	3	0	1	0	4
Total	3 (9%)	23 (72%)	3 (9%)	1 (3%)	2 (6%)	32 (100%)

Table 4. If You Are Not Satisfied with the Current Process, What Is the Reason Behind Your Dissatisfaction?

The timing and information factors follow the choices available. Geographical location was a less significant factor in choosing follow-on assignments compared to what we expected. However, location is embedded within the 'choices available.' Location is also limited because the Marine Corps, being a smaller organization than the Navy or the Army, has fewer bases. Most often, Marines will serve at major bases in Southern California, North Carolina, and Okinawa, Japan. Job choice includes location as well.

Table 5 displays the number of assignment choices available when Marines are considering their next duty assignment. 22% of those Marines surveyed had three or more choices available to them when they negotiated with their monitor. 44% of them only had one or two choices available. The small number of assignment choices available to Marines supports our previous findings that 'choices available' was the most influential factor affecting Marines' satisfaction with the current assignment

process. The 'not applicable' category likely indicates Marines who had a supervisor negotiate with the monitor. Therefore, these individuals may not have been aware of the choices offered.

Rank	Not applicable	More than 4	3	2	1	Total
E-5	5	0	3	4	2	14
E-6	14	0	5	7	9	35
E-7	8	3	7	7	9	34
E-8 / E-9	6	0	2	1	3	12
Total	33 (35%)	3 (3%)	17 (18%)	19 (20%)	23 (24%)	95 (100%)

Table 5. How Many Assignment Choices Were Available to You?

Table 6 shows how far in advance of the last change of station or actual rotation date that the Marines received their orders. 40% received orders two to three months before their move date. 32% received orders only one month before they moved. This suggests that some Marines may not have had sufficient time to prepare for their PCS move.

Table 7 shows the Marines' perception of whether their last set of orders was issued early enough to allow them to easily complete preparations for their PCS move. Despite the short preparation time before a move, 74% of Marines were satisfied with the timing of their orders. Again, satisfaction with the timing of orders was emphasized during the interviews.

Rank	Not applicable	1 to 30 days	31 to 60 days	61 to 90 days	91 days or more	Total
E-5	2	5	2	2	3	14
E-6	0	11	14	6	4	35
E-7	0	10	7	8	9	34
E-8 / E-9	0	4	2	4	2	12
Total	2 (2%)	30 (32%)	25 (26%)	20 (21%)	18 (19%)	95 (100%)

Table 6. How Early Did You Get Your Orders Prior to Your Move?

Current assignment policy does not specify the amount of lead-time before the move orders for a Marines should be issued. Monitors have an informal goal of issuing orders six months prior to a move. To insure Marines have sufficient time to prepare for their moves, time limits should be added to the assignment policy and process. Less time to execute transfers disrupts the lives of the Marines and their families, especially those Marines with school-aged children.

As of November 2002, MMEA began using the web orders system, which greatly reduced the processing time of the orders.

Phase One of this system was implemented in November 2002 while Phase Two includes the ability to notify Marines directly through their Marine On Line (MOL) account. Marines can then go to their administrative section and receive a copy of their orders. This new system streamlines a process that once took days. Now, it only takes minutes to complete.

Rank	Yes	No	Does not apply	Total
E-5	10	3	1	14
E-6	26	6	3	35
E-7	25	9	0	34
E-8 / E-9	9	3	0	12
Total	70 (74%)	21 (22%)	4 (4%)	95 (100%)

Table 7. Were Your Last Orders Issued Early
Enough to Allow You to Complete Preparations for
Your PCS Move?

Table 8 shows the primary concern of Marines when making assignment decisions. 35% said that the most important factor was location. 30% answered that the type of duty assigned was the most critical factor. Promotion opportunity, family concerns, and a spouse's job opportunities were not significant factors. In Butler and Molina's analysis of Navy Aviation Support sailors, they discovered five factors influencing a sailor's assignment considerations. These are family life, assignment location, job type, incentives, and training and education. They found that the family life attribute was the most important factor, followed by location and job. Our survey results showed that 'family concerns' is not a significant factor. However, our research, like theirs, found that location and type of duty assignment were significant when both Marines and sailors considered their next assignment. In our survey, we wanted to capture the effects of the assignment process on married and single individuals. Interestingly, we found that close to 38% of married

Marines without children and 41% of married Marines with children were not satisfied with the assignment process; 44% of married Marines and 23% of married Marines with children were satisfied with the current process.

Rank	Promotion opportunity	Type of duty	Location	Family concerns	Spouse's job	Total
E-5	1	6	3	3	1	14
E-6	4	8	15	6	1	34
E-7	6	9	10	6	2	33
E-8 / E-9	1	5	4	1	0	11
Total	12 (13%)	28 (30%)	32 (35%)	16 (17%)	4 (4%)	92 (100%)

Table 8. When Choosing Your Last Assignment, What Was Your Primary Concern?

Marital status	Not satisfied	Satisfied	Very satisfied	Total
Single	2	5	1	8
Single divorced	5	13	1	19
Married	13	25	2	40
Married plus children	14	13	1	28
Total	34 (36%)	56 (59%)	5 (5%)	95 (100%)

Table 9. Satisfaction with the Assignment Process According to Marital Status.

We expected a higher number of dissatisfied Marines with children due to the resultant disruption for school-aged children during moves. Children often lose their friends, and are forced into different education systems that may or may not be equivalent to those of previous

locations. This creates pressure on the Marines who must enable a smooth transition.

Additionally, there are Marines who have spouses in the military. Although the Marine Corps attempts to assign couples to the same duty station, this is not always possible. In one case, we interviewed a Marine stationed at MC Logistics Base Barstow, California, whose wife was also a Marine, stationed at the Marine Corps Air Ground Combat Center approximately 2 hours away. The Marine was promised that his wife would be ordered to Barstow when a billet became available. In this case, the Marine was very dissatisfied with a process that allows such a situation to occur.

2. Marines' Perception of the Monitor

Monitors are critical stakeholders in the Marine Corps assignment process. The quality and effectiveness, and satisfaction of the Marines with the assignment process depends heavily on the monitors. Some monitors did their best to deal with the specific concerns of the Marines when considering their next duty station, but others did not pay much attention to their problems, as based on interviews with Marines. In addition, monitors have a responsibility to fill vacancies as the command's advocate. Therefore, it is important to consider the perception of the Marines toward their monitor.

In her thesis on the Navy's enlisted detailing process, Melissa Short found that sailors want to be treated as a valuable commodity. They are not only satisfied with their desired duty preference, but they receive satisfaction from the process itself. During our

interviews, we discovered that Marines also value the same considerations. They want respect from the monitors, and they want to feel like a valued resource. This may be another reason why Marines tend to leave the service. As mentioned previously, as many as 45% of first-term Marines stated that they were unhappy with the choices available to them and claimed this to be the reason they left the Marine Corps (Fecteau, 2002).

Table 10 shows the Marines' perception of how receptive their monitors are to resolving conflicts between their personal desires, and the needs of the Marine Corps. 54% said that their monitors are receptive, but 46% said that they were not receptive. This was the common response across all ranks. It highlights the need for monitors to pay more attention and make an effort to resolve the problems of Marines to increase satisfaction with the process.

This is one of the examples of conflicting policy that the monitors must balance. On the one hand, they attempt to manage careers, assisting Marines with their desires and needs, while on the other hand, they must meet their primary mission of matching Marines with billets. Monitors are often inundated with phone calls from Marines seeking career advice, while e-mails pile up or phones ring without being answered. This is one reason to look at different ways to alleviate this problem. For example, more responsibility for career development/counseling could be placed on career planners or a two-sided matching system could be implemented to handle routine assignments giving the monitors more time to spend with Marines on the phone.

As discussed in previous chapters, monitors are career managers. They must be receptive to those they support. A lack of support from the monitor creates a sense of distrust. This may affect the assignment process, and also, the Marine's willingness to stay in an organization that fails to show concern for their future. Regardless of the organizational structure, some Marines view their monitors as part of a vast bureaucracy when they think of Headquarters Marine Corps. Despite the day-to-day challenges imposed on monitors, they must maintain a positive attitude, and a willingness to help those going through the assignment process.

Rank	Very receptive	Receptive	Not very receptive	Not receptive at all	Total
E-5	3	5	4	2	14
E-6	1	14	16	3	34
E-7	7	15	7	5	34
E-8 / E-9	2	4	4	2	12
Total	13 (14%)	38 (40%)	31 (33%)	12 (13%)	94 (100%)

Table 10. How Receptive Was Your Monitor to Resolving Conflict Between Your Personal Desires, and the Needs of the Marine Corps?

Table 11 emphasizes the perceptions of the Marines concerning the fairness of their monitor in assignment decisions. Only 15% of Marines responded that the monitors were fair, while 41% of Marines said that their monitors were sometimes fair. 44% of Marines said that their monitors were not fair. When Marines are looking for their next job, they try to obtain as much information possible regarding job availability. They use various information

sources, such as their peers, the Internet, career planners, monitors, and Marines within their chain of command. However, they do not receive enough information to satisfy their needs. Additionally, some Marines perceive that their monitors hold favorable jobs for their friends or relatives.

Rank	Yes	No	Sometimes	Total
E-5	2	6	6	14
E-6	8	15	12	35
E-7	3	14	17	34
E-8 / E-9	1	7	4	12
Total	14 (15%)	42 (44%)	39 (41%)	95 (100%)

Table 11. Do You Think The Monitor Treats Everyone Fairly?

This idea results from the fact that the current assignment process depends on human interaction. When human interaction is involved in the decision-making process, decision-making is subjective, especially when decisions involve the friends or relatives of the decision-maker. The monitors whom we interviewed were aware of the perceptions of unfairness, but they assured us that they made every attempt to be fair with Marines regardless of their relationship.

Much of this perception stems from the information that appears on the Internet. Monitors only post "Hot Fill" billet vacancies, and Marines perceive that they hold the "good jobs" for their friends. This is far from the

truth. Currently, monitors do not have a system in place that can post all vacancies on their website and continuously update the information. Soon, MASS will have the capability to display this information (interview with LT. Col Clark, 2003).

3. Information Source and Effectiveness

Marines try to gather as much information as possible when they consider their next assignment. Marines try to make the best decision to increase their satisfaction by looking for the most favorable future job available. They use the most effective information source based on their previous experience or advice from senior enlisted Marines within their chain of command. Some Marines prefer direct contact with their monitor. Others like indirect contact with their monitor via a career planner or chain of command.

Table 12 shows the most useful information source when Marines consider their next assignment. 36% of Marines said that the Internet was the most useful; 30% said that the monitor was the most useful; 26% of the Marines said that chain of command was the most useful. However, career planners and career counselors were not important factors to Marines. This means that Marines do not receive enough information from career planners/career counselors, or Marines think that career planners/career counselors are not influential in the assignment process.

During interviews, a number of Marines revealed that they attempted to communicate with their monitor via e-mail, but did not receive any response. Furthermore, Marines said that they received a more rapid response from

the same monitor after their commanding officers or their Sergeant Major contacted the same monitor on their behalf. This is one of the reasons why Marines sometimes prefer their chain of command to a career planner or a career counselor. During one of the focus group sessions, Marines revealed that some monitors would only speak directly to Staff Non-Commissioned Officers. This comment was never validated.

Rank	Career planner	Chain of command	Monitor	Internet / other	Career counselor	Total
E-5	0	3	3	8	0	14
E-6	3	11	12	9	0	35
E-7	4	9	9	11	1	34
E-8 / E-9	0	2	4	6	0	12
Total	7 (7%)	25 (26%)	28 (30%)	34 (36%)	1 (1%)	95 (100%)

Table 12. The Most Useful Information Source When Considering the Next Duty Assignment.

Currently, the majority of Marines receive valuable information from the Internet. Although MOL has not been used as extensively as the Marine Corps had hoped, it has gained popularity among Marines.

In our survey group, 92 out of 95 Marines have Internet access. 90% of the survey group agreed that if they could choose their next assignment using the Internet, it would increase their satisfaction with the process. Although Marines were apprehensive about allowing a computer to produce matches for them, they still agreed

that it would be a good idea. They had several follow-on questions about such a system. The more senior Marines feared that such a system would not consider their desires to remain in a certain location to transition into retirement. Junior Marines feared that those Marines who were proficient with technology would have an advantage.

Finally, one of the resounding factors that produces some apprehension is the multitude of special considerations that take place when Marines make their assignment decisions, such as unit deployments, physical condition of the Marine, family health issues and proximity to health care facilities, housing opportunities, educational institutions, and job opportunities for spouses.

Rank	Satisfied	Dissatisfied	Total
E-5	10	4	14
E-6	13	22	35
E-7	21	13	34
E-8 / E-9	7	5	12
Total	51 (54%)	44 (46%)	95 (100%)

Table 13. Are You Satisfied with the Amount of Information Available to You When Considering Your Next Assignment?

Table 13 shows the satisfaction of Marines with the information that they receive in the current assignment process. 54% of Marines responded that they were satisfied with the information they receive while 46% said that they were not satisfied. This implies that many Marines would

like more information to increase their satisfaction, and thus, enable them to make the best decision.

Figure 5 shows the effectiveness of communication media, such as letters, telephone calls, and e-mail, when Marines communicate with their monitors. We asked separate questions regarding the effectiveness of different communications methods. In general, Marines responded that the use of the telephone was the most effective means followed by e-mail, monitor visits, and career planners. However, letters or faxes were viewed as being ineffective. If we look at the responses of the Marines in detail, 54% of the Marines responded that the telephone or voice mail was effective. 47% of Marines answered that e-mail was effective. 45% of Marines said that the monitor visits were effective. During our interviews with Marines and monitors, both groups agreed that monitor visits were an effective and valued means of communicating job preferences. The monitors also noted that command visits were an effective way of gaining insight into individual needs and the needs of the Operational Forces.

During our interviews, Marines said that a quick response was important. When Marines use the telephone or e-mail, they receive quick responses from the monitors. Letters or faxes to the monitors do not result in quick or timely responses. Therefore, they are seldom used. During the interviews, however, several Marines commented that some of their attempts at e-mail or telephone calls generated no response at all, leading to disappointment.

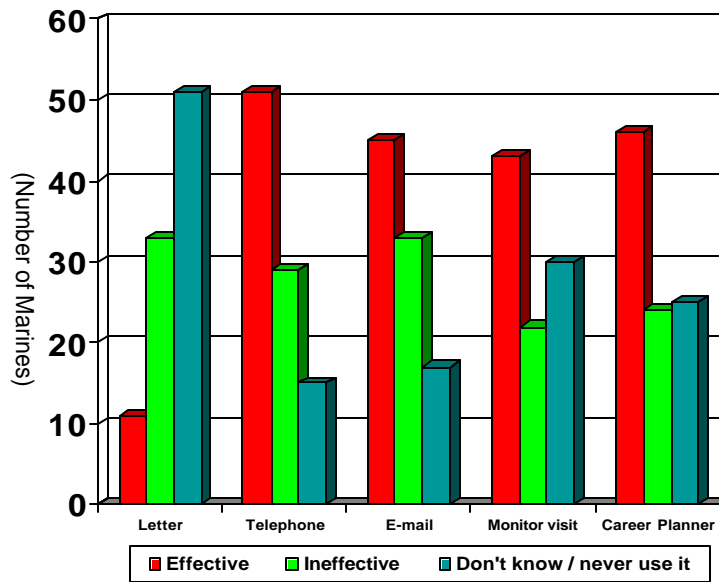


Figure 5. Effectiveness of Media When Marines Interact with Their Monitor.

4. Job Satisfaction and Career Planning

In this research, our basic assumption was that assignment process satisfaction was highly related to job satisfaction, and assignment process satisfaction would increase the productivity of the Marines, and ultimately the Marine Corps' personnel readiness. On the other hand, we can assume that job satisfaction is the product of the assignment process.

Rank	Disagree	Neither agree nor disagree	Agree	Total
E-5	1	3	10	14
E-6	2	9	24	35
E-7	1	6	27	34
E-8 / E-9	1	1	10	12
Total	5 (5%)	19 (20%)	71 (75%)	95 (100%)

Table 14. I'm Generally Satisfied with My Current Job.

It is reasonable that if Marines are assigned their preferred duty in accordance with their MOS, pay-grade, and so forth, they may be satisfied with their job. Therefore, we wanted to examine the relationship between the assignment processes and job satisfaction. In general, Marines are satisfied with their current job. Table 14 shows that 75% of Marines surveyed were satisfied with their job. Only 5% of those Marines were dissatisfied with their job. Figure 6 from 'Quality of Life in the Marine Corps,' published by the Navy Personnel Research and Development Center (NPRDC) in 1999, indicates that Marines were generally satisfied with their job, and the degree of job satisfaction increased by 3% to 6% across pay grades. Our survey results, and those of this report, both show that Marines are generally satisfied with their jobs.

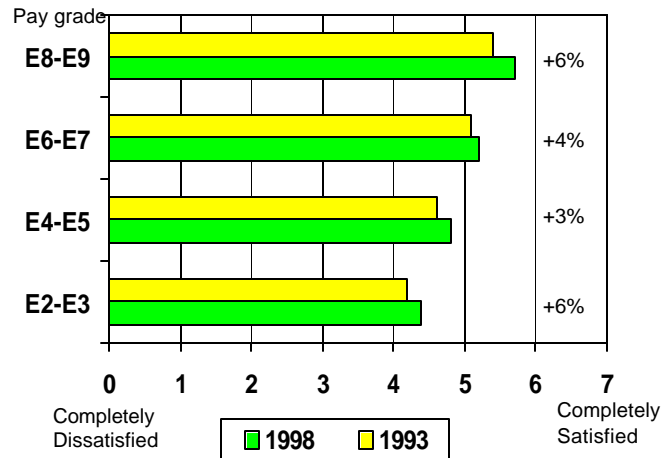


Figure 6. Satisfaction with Job by Pay Grade
(From: NPRDC).

As shown earlier in Table 3, 59% of Marines surveyed in this study were satisfied with the current assignment process. The proportion of Marines satisfied with their job was higher than that of Marines satisfied with the current assignment process by 16 percentage points. This implies that although some factors cause Marines to be dissatisfied with the assignment process, those factors do not significantly affect job satisfaction. Finally, we can infer that those factors do not significantly affect the end strength of the Marine Corps.

Additionally, 75% of the Marines were satisfied with their career development in the Marine Corps. Only 5% were not satisfied with their career development. This implies that the current assignment policy satisfies most of the

desires of Marines in career development. These results may justify leaving the current assignment process unchanged.

Rank	Family	Promotion opportunity	Assignment	Pay	Total
E-5	1	0	0	0	1
E-6	2	1	2	0	5
E-7	2	1	2	1	6
E-8 / E-9	3	1	0	0	4
Total	8 (50%)	3 (19%)	4 (25%)	1 (6%)	16 (100%)

Table 15. If You Have Decided to Leave, What Had the Greatest Influence on Your Decision?

In terms of retention, most Marines plan to stay in the Marine Corps. From our survey results, 66% of those Marines interviewed planned to stay in the Marine Corps, and only 18% planned to leave. Table 15 shows the reasons that Marines cited as having the greatest influence on their decision to leave. Family concerns were the greatest influence on their decision to leave the Marines. Assignment and promotion opportunities, respectively, were the second and third strongest influence on separation decisions. Currently, the Marine Corps is experiencing higher than normal retention rates. This could be due to the state of the economy or to the fact that the U.S. is fighting a war. However, as previously mentioned, retention continues to be an important factor in an all-volunteer force.

C. CHAPTER SUMMARY

Marines in the Operating Forces are a valuable source of feedback about the current assignment process. Much of the information gathered during our survey and subsequent interviews matches the findings of past studies. In general, Marines are satisfied with the current assignment process. However, 36% are unsatisfied. This was emphasized during the interviews. Marines cited various reasons for their dissatisfaction, but some of the resounding trends were the lack of information available, specifically, that only limited billet vacancies were displayed on the Internet. The Marines also complained about the lack of information on the qualifications for certain duty assignments. They were willing to take the initiative and call various commands, but they did not know what jobs they were qualified to accept.

Marines perceive that the monitors are biased because they do not display all the billet vacancies. This, again, leads us to believe that more information should be displayed on the Internet. Ninety-two Marines of the 95 we interviewed have access to the Internet. On several occasions during our interviews, Marines mentioned that the Internet is an important source of information.

The Marine Corps is implementing changes by using technology to disseminate information. This is evidenced by the introduction of the web orders system. The order writing process was vastly improved by introducing this system which expedited a process that took days to one that now takes minutes. Perhaps the assignment process itself could also be web based. A new process could reduce the

perceptions of bias, mismatches, lack of information, and might also reduce costs. In the following chapter, the automated systems of the Marine Corps and the Navy that enable monitors/detailers to perform their missions are examined.

V. NEW SYSTEMS COMPARED TO EXISTING SYSTEMS

A. MARINE CORPS INFORMATION SYSTEM

1. MASS (Monitor Assignment Support System)

The Marine Corps introduced MASS to increase efficiency and effectiveness of the assignment process. The goal in implementing MASS is to "provide the monitors with an automated and integrated tool to access all information essential for making assignment and career management decisions" (Personnel Management Division of Marine Corps). MASS will not replace the human decision maker, but it is designed to streamline existing processes, thus reducing paper work and providing essential information for the monitors to make assignment decisions. This system allows monitors to focus on the quality goal, that is, the best match between the "face" and the "space," and enables them to spend more time with Marines discussing career development. As noted earlier, during interviews with monitors, some were using MASS as it was designed, while others were not. However, in the near future, all monitors will eventually be trained and become accustomed to the system's true potential. In addition to the benefits within MMEA, MASS also standardizes both the enlisted and the officer assignment process. These processes were uniquely different as MASS emphasizes using one system for both processes.

Before proceeding further, it is important to review the types of problems monitors face. Monitors face structured problems. Structured problems are routine and have simple solutions. Unstructured problems are non-

recurring, and require solutions that are more complex. A structured problem in this context would be a qualified Marine who has been in the Operating Forces for the required amount of time desiring to move to an area offered by the monitor. A more complex problem would be the same scenario except that the Marine has a physical problem that may require him to be placed in a billet with fewer physical demands. The monitor must rely on his experience to assess the problem and develop a solution. The purpose of defining the types of problems encountered by the monitors is to understand the systems that are in place to assist the monitor in daily decision-making. There are many definitions of what constitutes a decision support system, but for our purposes, a decision support system is defined as one that assists the decision maker in solving structure and unstructured problems. Thus, MASS is considered to be an information system and a decision support system.

2. Strengths

MASS provides the capability to display current staffing shortfalls and overages, in addition to monthly projections as far as two years into the future. The two most important entities that MASS uses to track staffing are the Marine and the billet. These two entities are combined to track staffing in the SEAL (Figure 7), most commonly viewed by MOS (MMEA SOP). MASS can reduce much of the paper work, specifically the printed version of the SEAL, which was required in the old process. Monitors currently use the SEAL and other documents to assist them with their decision-making. By using MASS, monitors can

easily query the system to find projected billet vacancies for a specified period of time in the future.

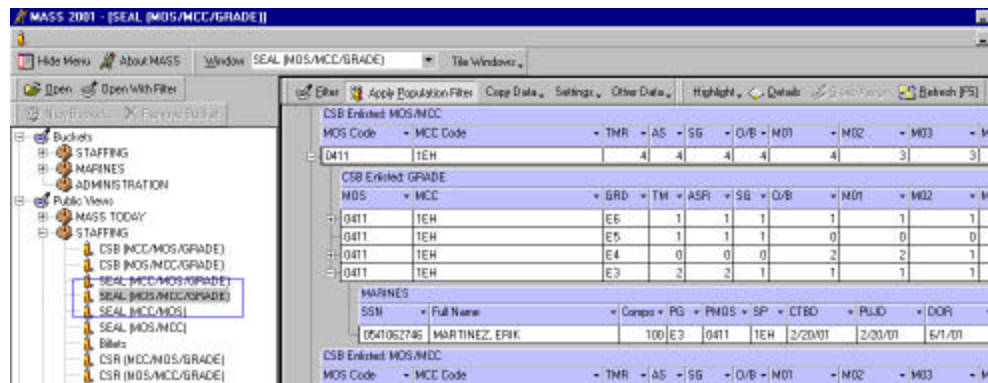


Figure 7. SEAL in the MASS (From: MMEA MASS SOP).

Monitors can fill billet vacancies with the most eligible Marines. First, MASS generates a list of expected billets and commands where the onboard projections in six months will be less than the staffing goal. Next, MASS generates a pool of eligible Marines to fill those billets. The lists include "forced movers,"¹¹ "pca-able,"¹² and "moveable."¹³ Finally, the monitors can fill billets with the best-fit Marine to the required percentage according to staffing precedence by MOS and by pay grade (MMEA SOP). MASS provides useful query functions. The monitors can

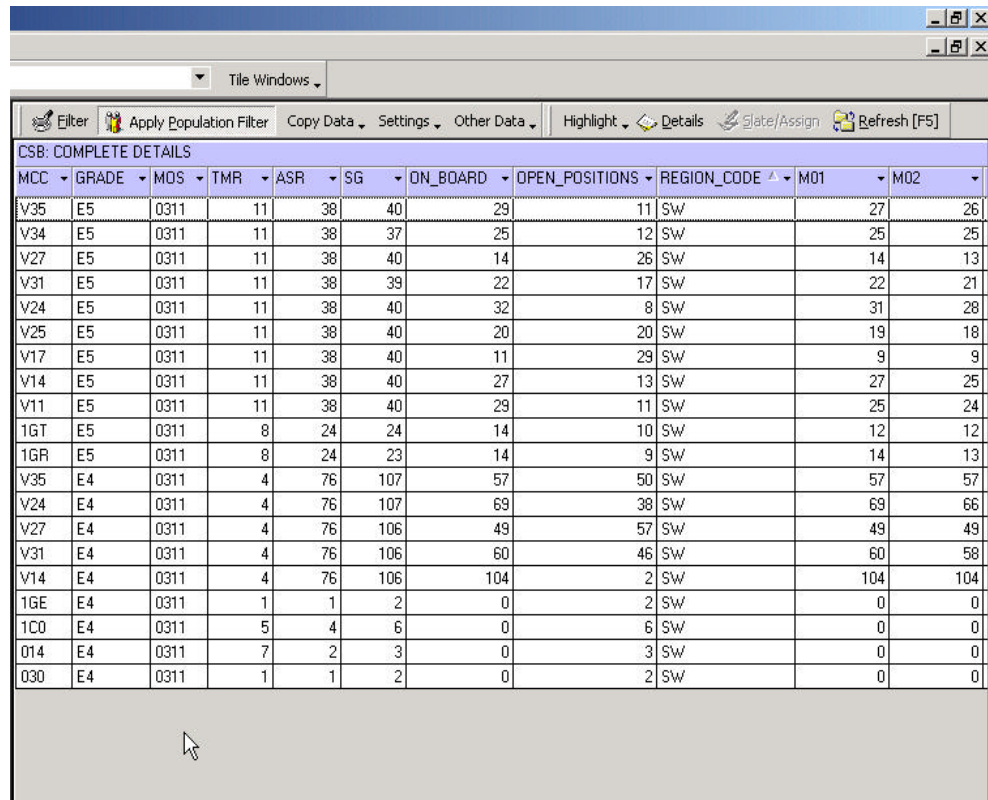
¹¹ Forced movers are defined by the following situations:

1. School Breaks & Lateral Movers
2. Rotating back from overseas
3. Returning from Special Duty Assignment
4. Rotating back from Sea Duty (ship)
5. PCS'ing from Inspector -Instructor duty

¹² pca-able Marines are those who meet the minimum TOS requirements for PCA (2 years at the current command), and when staffing supports the move.

¹³ Moveable Marines are those who are promoted out of a current billet (2 pay grades out of an assigned billet), and meet minimum TOS requirements for PCS from a CONUS Cmd.

retrieve billet information by MOS, pay grade, MCC, and region. They can easily retrieve staffing goals, Marines on board, and billet vacancies.



MCC	GRADE	MOS	TMR	ASR	SG	ON_BOARD	OPEN_POSITIONS	REGION_CODE	M01	M02
V35	E5	0311	11	38	40	29	11	SW	27	26
V34	E5	0311	11	38	37	25	12	SW	25	25
V27	E5	0311	11	38	40	14	26	SW	14	13
V31	E5	0311	11	38	39	22	17	SW	22	21
V24	E5	0311	11	38	40	32	8	SW	31	28
V25	E5	0311	11	38	40	20	20	SW	19	18
V17	E5	0311	11	38	40	11	29	SW	9	9
V14	E5	0311	11	38	40	27	13	SW	27	25
V11	E5	0311	11	38	40	29	11	SW	25	24
1GT	E5	0311	8	24	24	14	10	SW	12	12
1GR	E5	0311	8	24	23	14	9	SW	14	13
V35	E4	0311	4	76	107	57	50	SW	57	57
V24	E4	0311	4	76	107	69	38	SW	69	66
V27	E4	0311	4	76	106	49	57	SW	49	49
V31	E4	0311	4	76	106	60	46	SW	60	58
V14	E4	0311	4	76	106	104	2	SW	104	104
1GE	E4	0311	1	1	2	0	2	SW	0	0
1C0	E4	0311	5	4	6	0	6	SW	0	0
014	E4	0311	7	2	3	0	3	SW	0	0
030	E4	0311	1	1	2	0	2	SW	0	0

Figure 8. Results of a Query in MASS (From: MMEA MASS SOP).

The monitors can also consider the personal preferences of the Marines when they consider assignment decisions. When the monitors find Marines who are eligible for billet vacancies, they can take into account geographical preferences and duty preferences (MMEA SOP). The monitors can save three duty preferences and three geographical preferences for each Marine (Figure 9).

Monitors can verify that the Marines updated their personal information in MASS by asking them to verify their duty preferences during phone or command visit interviews (MMEA SOP).

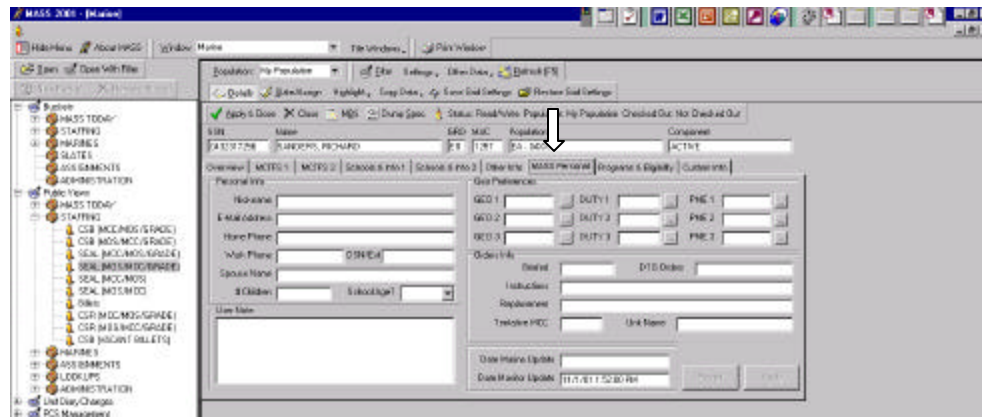


Figure 9. Personal Preferences in the "MASS Personal Information" (From: MMEA MASS SOP).

Monitors are now able to issue PCS orders using MASS. Figure 10 illustrates the flow of information within the web orders system. As mentioned earlier in Chapter IV, the Marine Corps implemented the "Web-Based Orders System" in November 2002. "The purpose of Web-based orders is to improve the functionality of the current orders process by maximizing the expanded features of the Internet, and integrating this functionality with the inherent capabilities of the MASS" (MARADMIN 628/02). Additionally, the enhanced functionality of the web-orders system includes the capability to distribute full-text orders in printable format from the Internet to all HQMC designated recipients. It can provide enhanced tracking capability for all HQMC designated recipients to monitor the disposition of orders at all times. In addition, it can be

a means to inform individual Marines that orders are in the system. The Web-Based Orders System will reduce time and errors in dealing with PCS orders compared to the old AOWP or Naval Message system. This will help increase the satisfaction of the Marines because they quickly receive the necessary and pertinent information to affect their move.

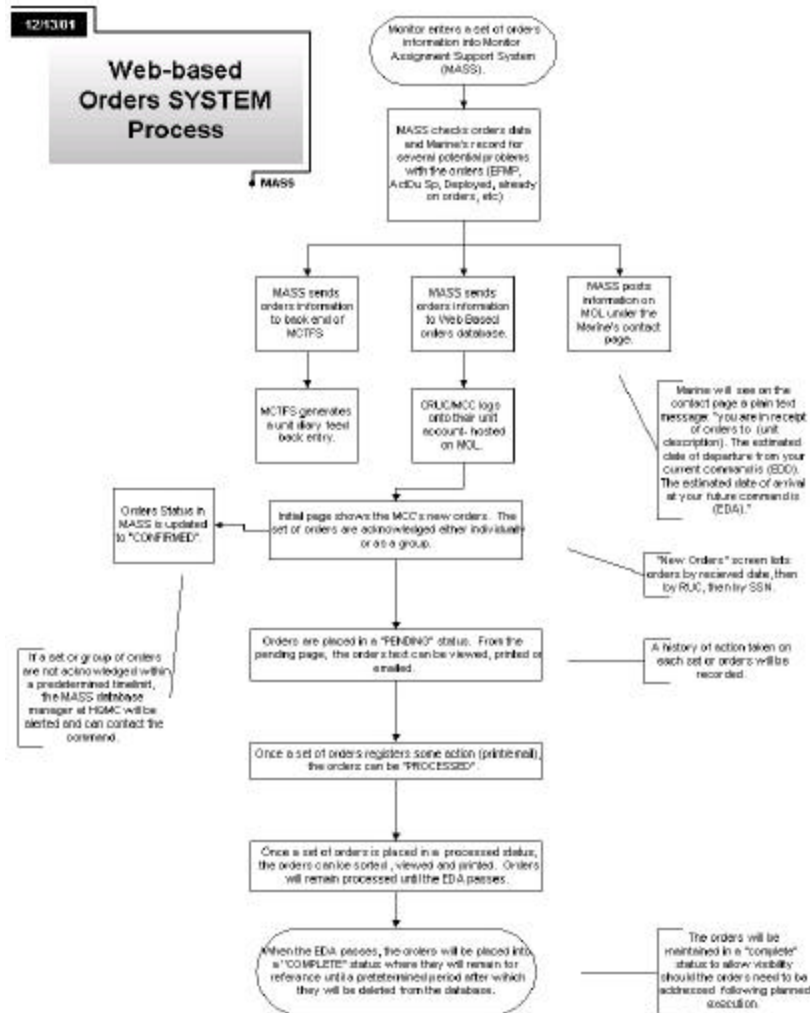


Figure 10. Web Based Orders System (From: MMEA MASS SOP).

MASS currently feeds a database that interfaces with MOL. Marines can input their geographical and duty preferences into MASS using MOL. Currently, Marines receive an e-mail notifying them that their orders are ready. Marines can then go to their administrative sections to receive a copy of their orders. Using MOL to notify Marines of posted orders results from the security features that are inherent within MOL. Although individual Marines will not receive a copy of the orders via MOL, they will receive notification of their orders.

3. Weaknesses

Although MASS provides the monitors with many advantages, it also has shortcomings. MASS can only provide information. It cannot replace the monitors in matching Marines with billets. Monitors will make mistakes, and the decision made by the monitors about assignments will not always be an optimal solution compared to using other alternatives, such as the two-sided matching system or optimization. In addition, it cannot eliminate the perception of the Marines that the monitors are biased.

MASS does not show current billet vacancies to the Operational Forces, only to the monitors who use the system. The most significant factor that caused Marines to be dissatisfied with the current process was the lack of information about available billets. It is directly related to the satisfaction of the Marines with the assignment process. Therefore, the Marine Corps should implement "the MASS Web Billets" system to show all the available jobs as soon as possible. Furthermore, Marines want to know for which jobs they are qualified. Aside from

the billets displayed, there should also be a section that displays the requirements for specific jobs.

The assignment process under MASS will be first-come, first-served. MASS only provides the necessary information for monitors to match Marines with jobs. The monitor will decide whether the Marine is qualified for the job when the Marine applies for the job via phone or e-mail. Some Marines may not have access to their monitors due to operational commitments. In such situations, Marines may have less opportunity and fewer choices compared to Marines who are in a normal stateside duty station with easier access to the monitors.

Finally, MASS depends on the monitors to consider the preferences of the individual Marines. MASS does not automatically consider these preferences. When the monitors try to find Marines eligible for billets, MASS just displays each Marine's preferences with other information in the final step. It is time-consuming for the monitors to consider the preferences of the Marines. The monitors can neglect personal preferences, and make assignments based on the needs of the Marine Corps regardless of the circumstances of the individual assignee.

B. NAVY INFORMATION SYSTEM

The Navy uses various information systems in its distribution process. In this study, the Job Advertising Selection System (JASS) and Enlisted Assignment Information System (EAIS) are examined. Both are used in the assignment process and match sailors with billets. In addition, the essential function of these systems will be briefly mentioned.

1. JASS (Job Advertising and Selection System)

The Navy is currently using JASS to improve assignment process efficiency and effectiveness. JASS is a decision support system for sailors, command career counselors (CCC), and detailers. Individual sailors currently have a "View-Only JASS" capability. It allows sailors to view, but not apply for, all available jobs in the current requisition. To submit applications, sailors must contact their career counselors (BUPERS, 2002). Command career counselors have access to the system for application purposes via "Web-JASS".

2. Project Sail and Super-JASS

The Navy recently introduced Project Sail that makes sailors the focus of the detailing process. A key feature of Project Sail is Team Detailing or integrating detailers with each Command's Retention Team. Team detailing relies on a spreadsheet of all sailors transferring within one year. The teaming spreadsheet includes a Sailor's preferences, special competencies, family and career considerations and additional comments from the Command's Career Development Board (NAVADMIN 070/02). Detailers can develop a comprehensive understanding of each sailor's characteristics, and the Command Retention Team helps each sailor plan a realistic career path.

The key of Project Sail is to implement a new version of JASS, called Super JASS. Super JASS augments the web-based distribution system by including a sailor's preferences, special competencies, and additional comments from the command's career development board. Detailers can consider the needs of the sailor and family, location

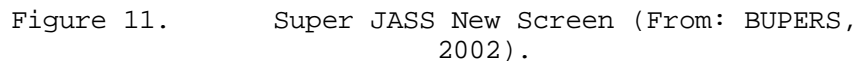
preferences and duty preferences when they consider each sailor's next duty station.

Another noticeable feature of Super JASS is that it will display all billets that manning control authorities intend to fill in any given nine month assignment period. Sailors can choose available jobs in three distinct categories that will help identify the billet and associated incentives (e.g.: SDAP, Location Selective Reenlistment Bonus, follow-on guarantees) (NAVADMIN 070/02). Super JASS provides more choices for sailors than the previous Web-JASS.

Figure 11 shows the Super JASS screen. NAVADMIN 130/02 explains three job categories in detail. The Red part of the screen shows "Hot Picks." Jobs listed on this screen are those with fill dates within 1-5 months. Sailors available for immediate transfers, e.g., coming off of LIMDU, terminating shore duty to transfer to sea, and so forth, should begin with the "Hot Picks" assignments when searching for their next billet. These assignments may be available to them, provided timing issues can be resolved.

The CCC will submit the sailor's JASS application to start the process. The green screen shows "Open Reqs." This screen contains the full range of priority assignments 6-9 months into the future. The green category, which is used by the majority of sailors in the normal orders negotiation window, is also available to others if timing issues can be resolved. The Amber screen shows "G2K," or jobs that are available as an incentive for those sailors reenlisting under the Guard 2000 program. This expanded list includes all jobs available, and not otherwise listed

In addition, Super-JASS describes a range of monetary incentives, such as location SRB or special duty assignment pay, and career incentives, for example, career accelerator positions such as billets in the sailorization cadre-recruiting, detailing, or training and certain overseas assignments. This helps sailors make more informed assignment decisions and thus increase satisfaction.



In the future, Super-JASS will become interactive, allowing sailors to review available jobs and apply for them. For now, however, their command career counselors will remain the middlemen in the job-shopping process (John Burlage, 2002).

3. EAIS (Enlisted Assignment Information System)

Detailers use EAIS to retrieve necessary information in assigning sailors to billets. In her thesis describing the current Navy enlisted detailing process, Melisa Short researched the function of EAIS. When a command's projected manning in a particular rating and rate (paygrade) falls below the projected Navy Manning Plan, requisitions are generated in the Enlisted Personnel Requisition System. The requisitions are then downloaded into EAIS. Billet requisitions for the detailer to fill appear on the EAIS screen. In addition, detailers can view distributable inventory in EAIS nine months before completing their current tour of duty, i.e., their Projected Rotation Date (PRD). Non-distributable sailors also appear in EAIS nine months prior to their PRD. Detailers obtain this list of "faces" in the EAIS on the PRD rollers screen. Once detailers have selected a sailor for a particular requisition, they access the Orders Writing Screen to begin the order writing process.

4. Strengths

The assignment process starts every two weeks. Sailors can see available jobs through "View-Only JASS" for about seven days. During this period, sailors select up to five available jobs, and then submit their application via career counselors. Finally, the detailers spend about four

days matching the best-qualified sailors to the available billets.

JASS allows sailors to see available jobs via the Internet. Therefore, sailors can make more informed decisions about their next duty assignment. Sailors select up to five available jobs by considering their family life, job availability for their spouse, and educational considerations for their children. This increases the sailor's quality of life.

JASS has increased the efficiency and effectiveness of detailers. Detailers can view all potential sailors who applied for the billet vacancies, and choose the best matched sailors from those applicants to the billets. This reduces paper work, allowing the detailers to focus on quality jobs and matching the most-qualified sailors to available billets. In this process, the detailers choose sailors favoring the command's desires. Thus, the detailers are command advocates.

JASS has increased the role of the Command Career Counselor. Whenever sailors apply for their next duty, they have to apply for jobs through a Command Career Counselor. This guarantees automatic counseling for sailors. Therefore, the sailors can make a better more informed decision. This would eliminate one of the complaints of the Marine monitors concerning Marines not knowing what they want as a follow-on assignment.

5. Weaknesses

JASS is not compatible with EAIS. Detailers must laboriously hand-transfer information from JASS into EAIS, and vice versa. After receiving a job application from a

sailor, the detailer has to print out or write down each member's social security number and then manually enter it into EAIS to properly screen the member for desired billets (Short, M. M.)

Feedback from JASS is not timely. After sailors submit their applications, they do not know the results of their application until the detailers complete their assignments. As a result, sailors do not know if their application is in the system until the detailer first downloads the applications, and the CCC then downloads confirmation numbers from the JASS client. This may not occur until the new requisition cycle starts (Short M. M.)

Another weakness of JASS concerns the outcomes of individual assignments. Sailors assume and hope that they will receive their first preference, but in the real world, this is not always the case. Some sailors are forced to fill priority billets that are critical to accomplishing the Navy's mission. Therefore, these sailors are disappointed and their morale plummets.

Finally, just as MASS depends on the monitors in matching Marines to billets, JASS depends on the detailers. JASS does not replace the detailers' role in the assignment process. The detailer's decisions are not typically an optimal solution, compared to using other assignment algorithms such as a two-sided matching or optimization program.

C. SUMMARY

The strengths and weaknesses of the information systems used by the Marine Corps and the Navy were examined. The Marine Corps uses MASS, while the Navy uses

JASS and EAIS within their assignment process. MASS is a decision support system, and was implemented to provide monitors with useful information. JASS is an automated detailing tool to help detailers find the best-qualified sailors. EAIS is a decision support system similar to MASS. These systems have their own strengths and weaknesses. They have streamlined the existing processes, reducing much of the laborious work, and have also reduced human errors. However, they still do not fully satisfy the customer's needs.

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VI. CONCLUSIONS AND RECOMMENDATIONS

A. RESEARCH QUESTIONS AND ANSWERS

1. Primary Research Questions

What are the perceptions from the Marine Corps Operating Forces regarding the current assignment process?

In general, 64% of those Marines surveyed were satisfied with the current enlisted assignment process. However, 36 % of Marines are not satisfied with the assignment process. Thus, there is still a need to improve the assignment process by investigating and solving problems that cause dissatisfaction. In terms of rank, lower ranking Marines are more satisfied with the assignment process than more experienced Marines. Additionally, we found that only 50% of married Marines with children are satisfied with the current enlisted assignment process. A Marine's satisfaction or dissatisfaction towards this process may influence his/her decision to remain on active duty in the Marine Corps. We find that the current retention rates are unusually high. However, Fecteau found that approximately 45% of first term Marines left the Marine Corps because of a lack of control over job assignments. The issue of retaining qualified, experienced Marines will continue to be in the forefront of problems in the future.

Does the Marine Corps need new tools to improve the assignment process? It depends on whether or not the Marine Corps' retention goals or end strength are being met, both in terms of quantity and quality. If the Marine Corps predicts that it will not achieve its quantity and quality retention goals, then introducing new tools can be

one way of increasing the likelihood of achieving these goals. Currently, the Marine Corps is achieving its retention goal (Edwards 2003). The Marine Corps does not need to introduce new tools to increase the satisfaction of Marines in order to achieve its retention goal. New tools, such as a two-sided matching system to enhance the assignment process, may be beneficial in the future. However, the Marine Corps must analyze the costs and benefits of such a system in accomplishing its retention goal.

What new tools can be introduced to make the process more efficient? The Marine Corps can introduce a web-based two-sided matching system for routine assignments. This matching system has the potential to increase the satisfaction of Marines with the process. Marines who know where they want to go, after having viewed available billets, can use a web-based two-sided matching system.

The U.S Navy is currently experimenting with such a system. Currently, sailors can view all available billets then seek counseling through a career counselor within the command and apply for up to five preferred billets. A two-sided matching algorithm would take this one step further, and would automatically and efficiently assign each sailor to an available billet.

During our interviews, we found that Marines are willing to use such a system, but they noted concern about system supervision. They preferred oversight by a human. With the inherent security measures available in MOL, the Marine Corps could enable such a system through MOL. Marines all over the globe could access the system and

apply for billets. This system could also include career planners who would provide counseling and access to MOL and the assignment system.

Although we are a nation at war against terrorism, and about to wage a war against Iraq, all services will someday be faced with reductions in force or cuts in the use of manpower. If the Marine Corps could reduce the number of monitors from 44 to perhaps 10, then that would equate to 34 more war fighters. Additionally, such a system could have tremendous effects on retention, especially among those Marines who believe that the process is biased. Having a machine make the assignments as opposed to a human would mean less bias.

2. Secondary Research Questions

What are the common trends within the questionnaires and interviews? We discovered several trends in our survey and interviews. The most significant trends are that Marines lack information, specifically, billet requirements, and all billet vacancies are not posted on the Internet. Marines also perceive that the monitors are biased, which most likely reflects that information is not displayed on the Internet. This creates a lack of trust among Marines.

In terms of Marines' perception of monitors, 46% of Marines surveyed thought monitors were not very receptive to solving their personal problems when they conflicted with the "needs of the Marine Corps." This may be a result of the challenges associated with the monitor's job. Everyone we spoke to at Headquarters Marine Corps touted the monitor force as a hard working, caring group of

Marines who do their best to support the Marines in the Operating Forces. However, this does not always equate to a positive helpful individual after a long day of answering phone calls and e-mails. The monitors to whom we spoke specifically stated that they try to explain the reasons behind their decisions on all occasions, but they said that Marines who are frustrated with the process do not always listen to the reasons.

On the other hand, Marines are generally satisfied with the overall assignment process, their current job, and the timing of their PCS orders. The Internet and monitors are useful information sources when Marines consider their next duty assignment. They favored the face-to-face meetings that occur yearly. Initially we believed that these meetings were not a significant source of information for the Marines. However, our survey group agreed that this is a useful means of communicating preferences.

What are the shortfalls of the current assignment system? Generally, the shortfalls are the limited information about the type and number of available billets, and the requirements for each billet. Marines would like to see what is available before calling the monitor. They want to know what they are qualified for when viewing billets. Additionally, information displayed on the Internet should have a batching component. This would allow the system to update the availability of billets on a daily basis. Currently, MASS does not provide a batching process. This leads to a choke point in the process. Billets are filled, and the system does not produce daily updates. Therefore, Marines who believe that they have a

chance at a certain billet may not because of the limitation of the system.

MASS interfaces with MOL, exploiting MOL's inherent security measures. However, if Marines choose not to use MOL, they do not benefit from the information displayed. Thus, Marines will have to have access to the system, either through personal PCs or through the command's career counselor. Additionally, Marines will have to establish accounts in MOL for the process to function.

Monitors continue to manually match what they believe to be the best-qualified Marines for the available billets. Therefore, they continue to spend a significant portion of their time making assignment matches. Marines will continue to perceive that monitors are biased. Currently, MASS streamlines the process to make the monitors more efficient. However, because there is no batching, and humans generate matches, this system is limited.

Will the new tools being implemented further assist Marines or create problems? MASS will enhance the satisfaction of Marines leading to higher retention rates and personnel readiness. In the future, it will display all billets available. Marines can make more informed decisions with greater information on billet requirements and availability. MASS now enables a web-based order writing process, thus reducing the amount of time required to generate orders. The order writing process once took several days, but today the process takes a matter of minutes.

What are the underlying considerations for Marines when deciding where to go? When Marines consider their

next assignment, 35% of those surveyed said that location is most important; 30% answered that the type of duty is the most important factor. Promotion opportunity, family concerns, and a spouse's job opportunities were not significant factors. This may be important when policy decisions are being considered for certain types of hard to fill billets or duty stations. Perhaps incentives can be tied to certain assignments. During an interview with the combat arms monitor, he noted that the Marine Corps Air Ground Combat Center, Twenty-nine Palms, California is one of the most difficult locations to fill billet vacancies. Specifically, he noted that more experienced Marines tend to avoid this base because of its location. This may be the Marine Corps' premier training ground, but it is an undesirable location to live. Perhaps this location would be more desirable if an incentive were offered to Marines accepting orders to this location.

B. RECOMMENDATIONS

With 36% of the survey respondents declaring dissatisfaction with the current enlisted assignment process, the Marine Corps, and especially the customers within this process, can definitely benefit from changes to the current process. The following are recommendations:

- Investigate the addition of a batching process to MASS. Conduct a closer investigation of the Navy's Super-JASS
- Provide an incentive program for monitors to affect their responsiveness to solving problems/explaining 'why' in certain cases
- Display all billet vacancies on the Internet with the requirements for each billet clearly stated for Marines to view

- Use students at the Naval Postgraduate, specifically within the Manpower Systems Analysis curriculum, to investigate the use of a two-sided matching algorithm for making assignments

C. AREAS FOR FURTHER RESEARCH

The Marine Corps should examine the costs and benefits of implementing new systems, such as a web-based two-sided matching system. Implementing such a system requires substantial resources in addition to the need for organizational change caused by new technology. On the other hand, it could increase the level of satisfaction among the customers, leading to higher levels of readiness and higher retention rates.

It is also necessary to conduct more extensive studies of the perceptions and expectations of Marines who are assigned to regions other than California. In this research, we focused mainly on male Marines assigned to California bases. Female Marines and male Marines working in other geographical areas may have different perceptions of the assignment process. Marines in one area may be more positive and upbeat than Marines in another area. Analyzing the overall perceptions of the Marines of the assignment process can provide insight about the geographical preferences of Marines as well. As technology evolves, the use of IT has made some processes more efficient. Although technology is not the answer to all problems in all cases, it may provide the means necessary for humans to make better and more informed decisions.

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APPENDIX A. ACRONYMS

ACE	Aviation Combat Element
ACTS	Assignment, Classification, and Travel System Manual
AOWP	Automated Orders Writing Process
ASR	Authorized Strength Report
C&A	Classification & Assignment
CBRP	Concept Based Requirements Process
CCC	Command Career Counselor
CDR	Command Distribution Report
CMC	Commandant of the Marine Corps
CONUS	Continental United States
CSSE	Combat Service Support Element
DC (M&RA)	Deputy Commandant, Manpower and Reserve Affairs
DMDC	Defense Manpower Data Center
DoD	Department of Defense
EAIS	Enlisted Assignment Information System
EAL	Enlisted Assignment Listing
EAM	Enlisted Assignment Model
EAS	End of Active Service
ECFC	Enlisted Career Force Controls
EPAD	Enlisted Personnel Availability Digest
EPRES	Enlisted Personnel Requisition System
ESGM	Enlisted Staffing Goal Model

FMF	Fleet Marine Force
FTAP	First Term Realignment Program
GAR	Grade Adjusted Recapitulation
GCE	Ground Combat Element
HMF	Headquarters Master File
HQMC	Headquarters Marine Corps
HRDP	Human Resource Development Process
IT	Information Technology
JASS	Job Advertising and Selection System
JUMPS/MMS	Joint Uniform Military Pay System/Manpower Management System
M&RA	Manpower and Reserve Affairs
MAGTF	Marine Air-Ground Task Force
MASS	Monitor Assignment Support System
MCC	Monitored Command Code
MCCDC	Marine Corps Combat Development Command
MCO	Marine Corps Order
MCTFS	Marine Corps Total Force System
MMEA	Manpower Management, Enlisted Assignment Branch
MOL	Marine OnLine
MOS	Military Occupational Specialty
MPP	Manpower Plans and Policy
NCA	National Command Authority
NCO	Non-Commissioned Officer
NEC	Navy Enlisted Code

NMP	Navy Manning Plan
NPRST	Naval Personnel Research, Science and Technology
NPS	Naval Postgraduate School
OCONUS	Out of Continental United States
OMPF	Official Military Personnel Files
ONR	Office of Naval Research
P&R	Programs & Resources
PAC	Personnel Action Center
PCA	Permanent Change of Assignment
PCS	Permanent Change of Station
PCSO	Permanent Change of Station Orders
PERB	Performance Evaluation Review Board
PME	Professional Military Education
PMOS	Primary Military Occupational Skill
POM	Program Objective Memorandum
R ⁴	Right sailor, with the Right skills, in the Right job, at the Right time
RTD	Rotation Tour Date
RUC	Reporting Unit Codes
SE	Supporting Establishment
SEAL	Special Enlisted Assignment Listing
SOP	Standard Operating Procedures
SORTS	Status of Resources and Training System
SWOT	Strengths, Weaknesses, Opportunities and Threats

T2P2	Training, Transient, Patient and Prisoner
T/MR	Table of Manpower Requirements
T/O&E	Table of Organization & Equipment
TFSD	Total Force Structure Division
TFSO	Total Force Structure Owner
TFSP	Total Force Structure Process
TIS	Time in Service
TOS	Time on Station

APPENDIX B. ASSIGNMENT PROCESS QUESTIONNAIRE

1. What is your gender?
a) Male b) Female
2. What is your paygrade?
a) E-5 b) E-6 c) E-7 d) E-8 e) E-9
3. How long have you been on active duty in the Marine Corps?
a) Less than 5 years b) 5-10 years c) 10-15 years d) Greater than 15 years
4. What is your current Marital status?
a) Single b) Single divorced c) Married d) Married plus children
5. What is your spouse's employment situation?
a) No spouse b) Employed c) Not employed
6. Do you have school-aged children? If so, how Many?
a) 1 b) 2-3 c) 4 or more d) Not applicable

Assignment Process

7. How many PCS moves have you made in your career?
a) Less than 2 b) 3-4 c) 5-6 d) More than 7
8. How receptive was your monitor to resolving conflicts between your personal desires, and the needs of the Marine Corps?
a) Very receptive b) Receptive c) Not very receptive d) Not receptive at all
9. From whom do you get information about your next duty assignment? (Choose only one)
a) Career Planner b) Chain of Command c) Monitor d) Internet/other e) Career counselor
10. Are you satisfied with the information that you received when you were considering your last PCS?
a) Yes b) No

11. How many assignment choices were available to you when you negotiated with your monitor?
a) Not applicable b) More than 4 c) 3 d) 2 e) 1
12. How far in advance of your last change of station or actual rotation date did you receive your orders?
a) Not applicable b) 1 to 30 days c) 31 to 60 days
d) 61 to 90 days e) 91 days or more
13. Were your last orders issued early enough to allow you to easily complete preparations for your PCS move?
a) Yes b) No c) Does not apply
14. When choosing your last assignment, what was your primary concern? (Pick only one most important reason)
a) Future promotion opportunity b) Type of duty
c) Geographic location d) Family concerns
e) Spouse's job availability
15. Are you satisfied with the assignments process?
a) Not satisfied b) Satisfied c) Very satisfied
16. If you are not satisfied with assignment process, what made you dissatisfied?
a) Information b) Choices available c) Timing
d) Location e) Job
17. How effective do you feel a letter or fax is for interacting with your monitor?
a) Effective b) Ineffective c) Don't know/ never use it
18. How effective do you feel the telephone or voice mail is for interacting with your monitor?
a) Effective b) Ineffective c) Don't know/ never use it
19. How effective do you feel electronic mail is for interacting with you monitor?
a) Effective b) Ineffective c) Don't know/ never use it
20. How effective is the monitor visit for you?
a) Effective b) Ineffective c) Don't know/ never use it

21. How effective was your career planner?
a) Effective b) Ineffective c) Don't know/ never use it
22. Do you have internet access available to you at your current command?
a) Yes b) No
23. If you can choose your next tour on the internet (like internet shopping), will you be more satisfied with decision?
a) Yes b) No
24. If you could stay in one geographic area for multiple tours how important would this be to you?
a) Important b) Not important c) Neither important nor unimportant
25. Do you think that the monitor treats everyone fairly?
a.) Yes b) No c) Sometimes

Job satisfaction

26. I'm generally satisfied with my current job.
a) Disagree b) Neither agree nor disagree c) Agree
27. I am satisfied with my career development.
a) Disagree b) Neither disagree nor agree c) Agree
28. What is your career plan?
a) Stay b) Leave c) Undecided
29. If you have decided to leave the Marine Corps, what had the greatest influence on your decision?
a) Family b) Promotion opportunity c) Assignment d) Pay

Please give us additional comments regarding the assignments process:

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On Behalf of Major Ramirez and Captain Park, thank you for
your time and effort.

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